

Ford Allen Park Clay Mine

MID 980568711

Section M Exposure Information Requirement (EIR)

ENVIRONMENTAL AND FAILURE MODE ASSESSMENT

This section provides information on the potential public exposure to hazardous wastes or hazardous constituents through releases related to the unit. The exposure information addresses:

- reasonably foreseeable potential hazardous waste releases from transportation to or from the unit, normal operations at the unit and accidents;
- potential pathways of human exposure from such releases; and
- potential magnitude and nature of human exposure from such releases.

In summary, there is a low potential for and magnitude of human exposure from releases from both normal operations, accidents, and transportation at or near the facility for three reasons:

1. Limited pathways to human exposure - Drinking water sources cannot be affected due to the location of the facility.
2. Low toxicity of waste - Subject waste streams are not acutely toxic, reactive, flammable or volatile but generally require a leaching procedure to mobilize their hazardous constituents. Therefore, direct short term contact with the wastes will not cause significant harmful effects on human health.



3. Small quantity of waste released - Releases from the facility will probably be short-lived episodic events which does not allow for chronic exposure.

The EPA Appendix A checklist was utilized in the development of this EIR. Some additional general information which has not been submitted previously has been provided in this section as follows:

1. Zoning maps for an area four miles around the unit which include the cities of Dearborn, Melvindale and Allen Park. Refer to pages 415-417.
2. Two aerial photographs of the facility and surrounding community which show the north (Dearborn) and south (Allen Park) half of the region. Refer to pages 418-419.
3. Tabulation of current leachate analyses which indicates the toxicity of the wastewater to be managed. Refer to page 420.
4. Current estimate of annual waste volumes that have been disposed of at the unit. Refer to page 421.
5. Neighborhood cancer incidence analysis performed by the Biostatistics Unit of the Michigan Cancer Foundation, Division of Epidemiology is provided on pages 428-439.

#### Known Release Information

Information concerning prior releases that may have occurred in the past relating to nearby solid waste activities is provided in Section L pages 369-401 of the Part B license application.





# APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

## 1. General Information

Location in  
RCRA Permit  
Application

Reg. Cite	Description	Page #
<u>Information in Part B Application</u>		
270.14(b)(1)	General description of facility	26
270.14(b)(2) and (3)	Chemical and physical analyses of wastes	73
270.14(b)(4)	Access control and security description of active portion	268
270.14(b)(5), 270.17(d), and 270.21(d)	General inspection schedule and procedures	271
270.14(b)(6)	Preparedness and prevention documentation	268
270.14(b)(7)	Contingency plan	277
270.14(b)(8)	Preventive procedures	268
270.14(b)(11) (i) and (ii)	Facility location information	61
270.14(b)(13)	Closure plan	322
270.14(b)(13)	Post-closure care plan	322
270.14(b)(17)	Documentation of insurance	322



APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

Location in  
RCRA Permit  
Application

1. General Information (continued)

Reg. Cite	Description	Page #
<u>Information in Part B Application (continued)</u>		61 154A 154.1A
270.14(b)(19)	Topographic map (site plotted on USGS quadrangle maps)	
270.21(a) and 270.17(a)	List of wastes placed or to be placed in each unit	73

Additional Information

Existing risk assessment reports and information, including liability insurance analyses, claims, and settlements	(428-439)
Land use and zoning map(s) for an area of 4 miles around the unit	(415-417)
Existing aerial photographs of the facility	152A (418-419)
Identify and summarize any waste analysis data not already submitted; provide additional data as discussed in text	(420)
Current estimate of annual amount of waste received and description of any pretreatment process used	(421)
Identification of any Federal, State, or local inspection or compliance records related to environmental and health programs; include descriptions of any major violations	(422)

( ) Denotes pages included with this submittal.



APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

2. Ground Water Pathway

Location in  
RCRA Permit  
Application  
Page #

<u>Reg. Cite</u>	<u>Description</u>	
<u>Information in Part B Application</u>		
270.14(c)(1)	Interim status ground-water monitoring results	211A
270.14(c)(2)	Identification of uppermost aquifer, including flow rate and direction	210
270.14(c)(3) and 270.14(b)(19)	Topographic maps related to ground-water protection (well location, water table elevation contours, etc.)	210
270.14(c)(4) (i) and (ii)	Description of existing contamination	Not Applicable
270.14(c)(5)	Detailed plans for ground-water monitoring program	163
270.14(c)(6)	Description of detection monitoring program (if applicable)	Not Applicable
270.14(c)(7) and (c)(7)(ii)	Description of compliance monitoring program and characterization of contaminated ground water (if applicable)	Not Applicable
270.14(c)(7)(iv)	ACL demonstration (if any)	Not Applicable
270.14(c)(8)	Corrective action program (if applicable)	Not Applicable
270.17(b)(1) 270.21(b)(1)	Description of liner and leachate collection systems (if applicable)	99A

904  
406



# APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

## 2. Ground-Water Pathway (Continued)

Description	Page #
<u>Additional Information</u>	
Existing map showing location of all known wells within three miles ; number and location of drinking water wells	(424)
Discussion of ground-water uses within three miles of unit	(423)
Regional map showing areas of ground-water recharge and discharge	(424)
Net precipitation using net seasonal rainfall or other available data	122A
Unless otherwise reported to EPA, available well data indicating a release, and information on any affected public or private water supplies, including populations served	Not Applicable (423)
Any known food chain contamination due to prior release from the unit to ground water	Not Applicable (423)





# APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

## 3. Surface Water Pathway

Location in  
RCRA Permit  
Application

Reg. Cite	Description	Page #
<u>Information in Part B Application</u>		
270.14(b)(11) (iii) thru (v)	Location information related to 100 yr flood plain including variance demonstrations	154.8A
270.21(b)(2)	System for control of run-on from each peak discharge of 25 yr storm	155
270.21(b)(3)	System for control of run-off from 24 hr, 25 yr storm	159
270.17(b)(2)	Procedures/equipment to prevent overtopping	155
270.17(b)(3)	Structural integrity of dikes	155
<u>Additional Information</u>		
	Discussion of surface-water uses within three miles of the unit, including a map showing the location of all surface-water bodies and downstream drinking water intakes	(424-425)
	Velocities of streams and rivers passing through and adjacent to the property	(425)



# APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

## 3. Surface Water Pathway (Continued)

Reg. Cite	Description	Page #
<u>Additional Information</u> (continued)		
	Description of any system used to monitor surface-water quality, and a summary of the data	385-398 (425)
	Description of known releases to surface water; the extent of contamination; remedial action, if any; and if known, severity of impact.	369
	Any known food-chain contamination resulting from prior release from the unit to surface water	(425)



# APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

## 4. Air Pathway

Reg. Cite	Description	Location in RCRA Permit Application
<u>Information in Part B Application</u>		Page #
		276
		162.1A
		154.6A
<u>Additional Information</u>		
		(427)
		(427)
		(427)



APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

5. Subsurface Gas Pathway

Location in  
RCRA  
Application

Reg. Cite	Description	Page #
<u>Information in Part B Application</u>		
	None in addition to General Information Requirements	-----
<u>Additional Information</u>		
	Any past disposal of municipal-type wastes in the unit; approximate quantities and dates of disposal, if known	Not Applicable (449)
	Map location of any underground conduits within the site and known underground conduits within 1000 feet of property boundary	154.6A
	Descriptions of any monitoring or control mechanisms for subsurface gas release; summarize resulting data	Not Applicable (449)
	Description of any known releases; extent of contamination; remedial action taken, if any; and the severity of impact, if known	Not Applicable (449)

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APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

6. Contaminated Soil Pathway

Location in  
RCRA  
Permit  
Application  
Page #

Reg. Cite	Description	
<u>Information in Part B Application</u>		-----
	None in addition to General Information Requirements	
<u>Additional Information</u>		
	If soil sampling has been done, a map showing areas of soil contamination, and a summary of analytical results	369-401
	Description of the types of major releases that resulted in soil contamination, and any clean-up action	Not Applicable (450)
	Any known food-chain contamination resulting from the use of contaminated soils for raising crops	Not Applicable (450)



# APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

## 7. Transportation Information

Reg. Cite	Description	Location in RCRA Permit Application
<u>Information in Part B Application</u>		Page #
270.14(b)(10)	Traffic pattern, volume, and controls; access road characteristics.	62A
<u>Additional Information</u>		
	Description of the types and capacities of vehicles used to transport waste	(450)
	Identification of normal transport routes for hazardous waste into the site and within one mile of the facility entries	(450)
	Description of procedures for clean-up of transportation-related spills or leaks	(450)
	Descriptions of any transportation accidents releasing hazardous wastes on-site, or in the immediate vicinity	(451)



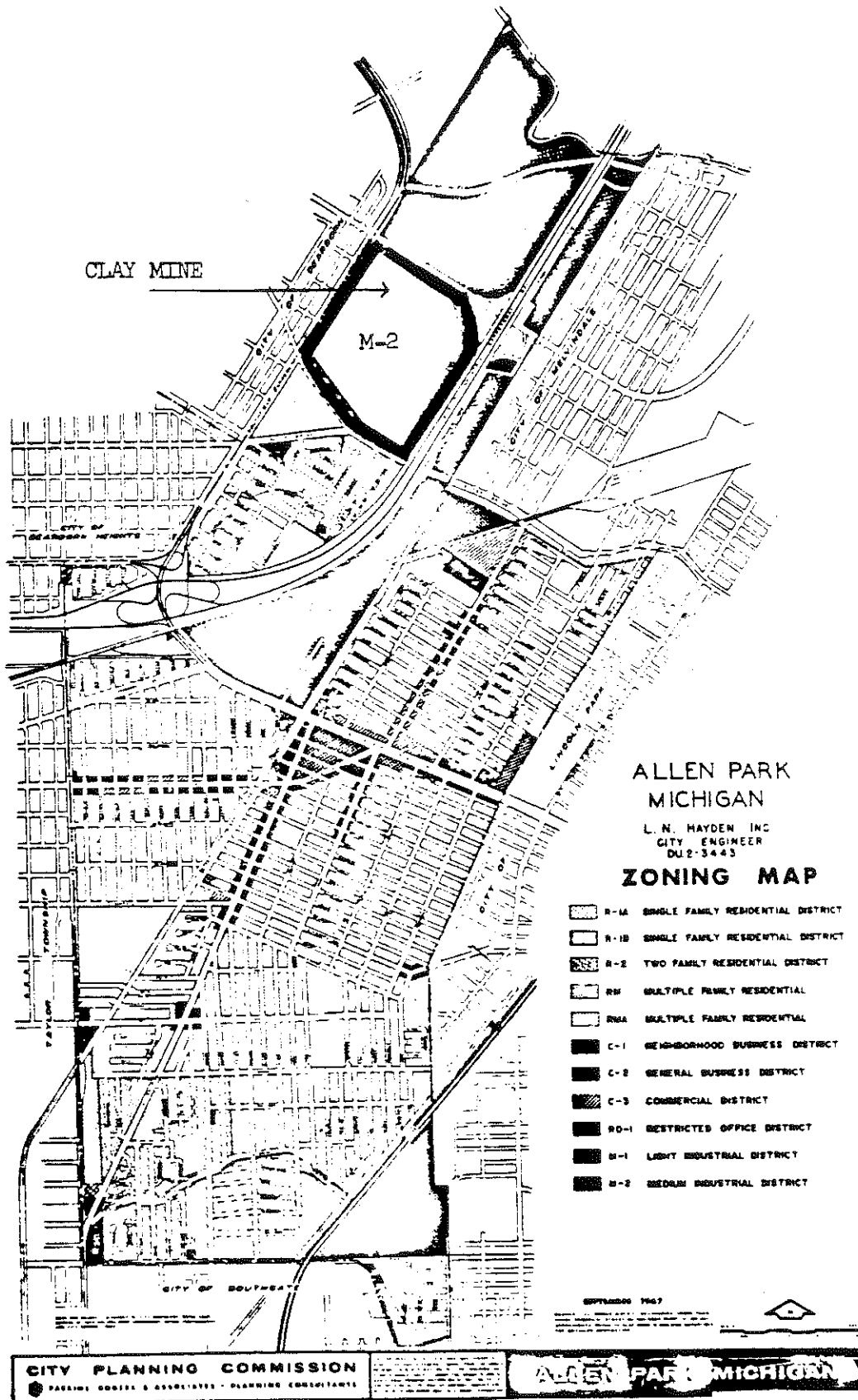
APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

B. Management Practices Information

Location in  
RCRA  
Permit  
Application  
Page #

Reg. Cite	Description	
<u>Information in Part B Application</u>		
270.14(b)(12) 264.16	Outline of programs to train employees to safely operate and maintain facility, including emergency response activities	294
<u>Additional Information</u>		
	Summary of existing records on worker illness or injury, related to the operation of the unit; Include summaries of Workman's Compensation claims, or hospital records	(451)







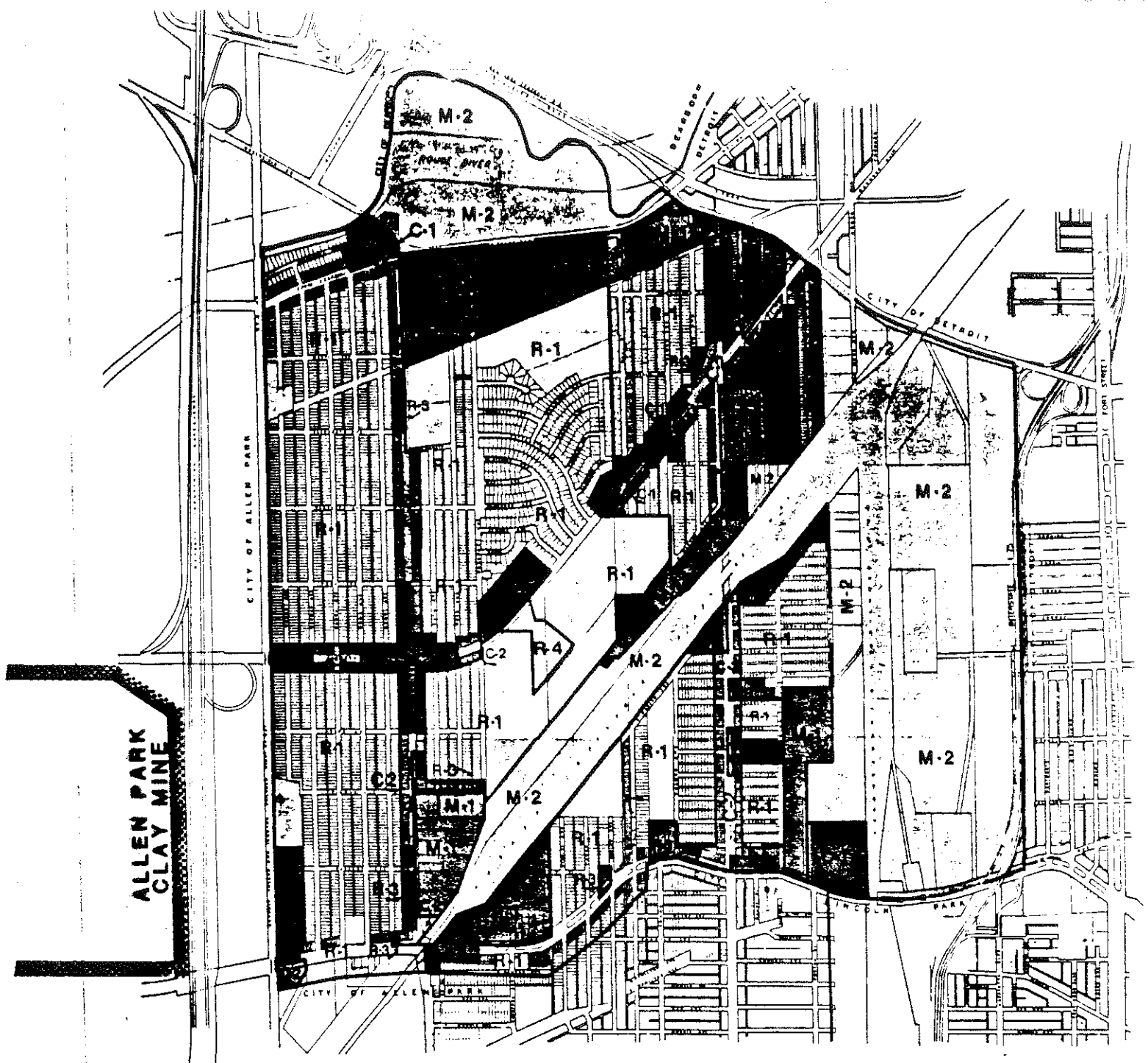


[illegible][illegible]

**80585**

**505093**





## ZONING MAP

- |                                 |                            |
|---------------------------------|----------------------------|
| R-1 ONE-FAMILY RESIDENTIAL      | PB-1 PROFESSIONAL BUSINESS |
| R-2 TWO-FAMILY RESIDENTIAL      | C-1 GENERAL SHOPPING       |
| R-3 MULTIPLE-FAMILY RESIDENTIAL | C-2 GENERAL COMMERCIAL     |
| R-4 MULTIPLE-FAMILY RESIDENTIAL | M-1 LIGHT MANUFACTURING    |
| MHP MOBILE HOME PARK            | M-2 GENERAL MANUFACTURING  |

FEBRUARY 1987









ALLEN PARK AREA  
ALLEN PARK, MICHIGAN

DATE OF PHOTOGRAPHY  
10/15/50

KUCERA







Allen Park Clay Mine -- MID 980 568 711  
Leachate Analyses -- Hazardous Waste Cell I

DATE	PARAMETERS						pH
	Cd mg/l	Cr mg/l	Pb mg/l	Naphthalene ug/l	Phenol Method 4AAP mg/l	Method 604 ug/l	
4/13/84	<0.01	0.02	<0.05	<10	0.014	<10	
4/18/84	0.01	0.02	<0.05	<10	0.010	<10	
7/19/84	0.02	0.05	0.06	<10	0.090	<10	8.05
8/27/84	0.04	<0.02	0.11	<10	0.023	<10	
10/9/84	<0.01	<0.02	<0.05	<2	0.064	15	7.30
10/10/84	0.01	<0.02	0.08	<2	0.028	<2	7.90
10/11/84	0.01	<0.02	<0.05	<2	0.020	<2	7.96
10/12/84	0.02	<0.02	<0.05	<2	0.025	<2	8.09
10/15/84	<0.01	<0.02	0.10	<2	0.052	10	7.73
11/8/84	0.02	0.02	0.14	<10	0.14	<130	7.58
11/15/84	0.01	0.08	0.20	10	1.00	<390	7.42
11/16/84	0.01	0.03	0.14	18	0.15	<430	7.47
12/8/84	0.02	<0.02	<0.05	<10	0.61	<110	7.58
12/13/84	0.03	0.34	0.50	<12	3.3	<70	7.36
1/7/85	----	<0.02	<0.05	<10	3.8	<900	8.60
1/8/85	----	<0.02	<0.05	<15	3.4	<140	8.61
1/9/85	----	0.03	<0.05	<15	0.015	<200	8.56
1/10/85	----	0.03	<0.05	<48	2.8	<155	8.13
1/11/85	----	<0.02	<0.05	<14	2.7	<235	8.55
1/25/85	<0.01	0.03	<0.05	<64	2.24	<650	8.4
1/28/85	<0.01	0.04	<0.05	<66	2.03	<860	8.5
1/29/85	<0.01	0.06	<0.05	<13	0.69	<240	8.4
1/30/85	<0.01	0.18	0.17	<85	1.80	<750	8.5
4/15/85	0.02	0.12	0.42	<10	3.2	<770	8.07
4/15/85	0.02	0.10	0.33	<10	0.80	<300	8.11
4/30/85	0.01	0.24	0.48	<10	0.42	<25	8.39



Estimated Annual Volume of Waste

<u>Waste Type</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>Future</u>
F016	16,136	-	-	-	-
D005, D008	3,612	-	-	-	-
K061	6,259	469	60	223	19,074
K087	4,634	1,673	886	1,292	5,270
F006	-	-	-	-	20,000
D006	-	-	-	-	20,000
D007	-	-	-	-	20,000
D008	-	-	-	-	20,000
Total	30,641 yd. <sup>3</sup>	2,142 yd. <sup>3</sup>	946 yd. <sup>3</sup>	1,515 yd. <sup>3</sup>	104,344 yd. <sup>3</sup>

Future waste volumes are based on maximum disposal rates.



### Inspection Reports

Michigan DNR personnel perform annual RCRA inspections on behalf of the EPA as well as quarterly Act 64 inspections at the facility. Reports are available from:

Hazardous Waste Division  
Michigan Department of Natural Resources  
P. O. Box 30028  
Lansing, Michigan 48909

A review of the alleged violations outlined in these reports reveal that most of the alleged deficiencies are procedural in nature. Examples include maintenance of training records, signage and inspection reports. The necessary corrective actions have been taken.

None of the alleged violations are considered major. In no case did the alleged deficiencies cited result in a release to the environment. The facility has not experienced any other regulatory agency inspections.



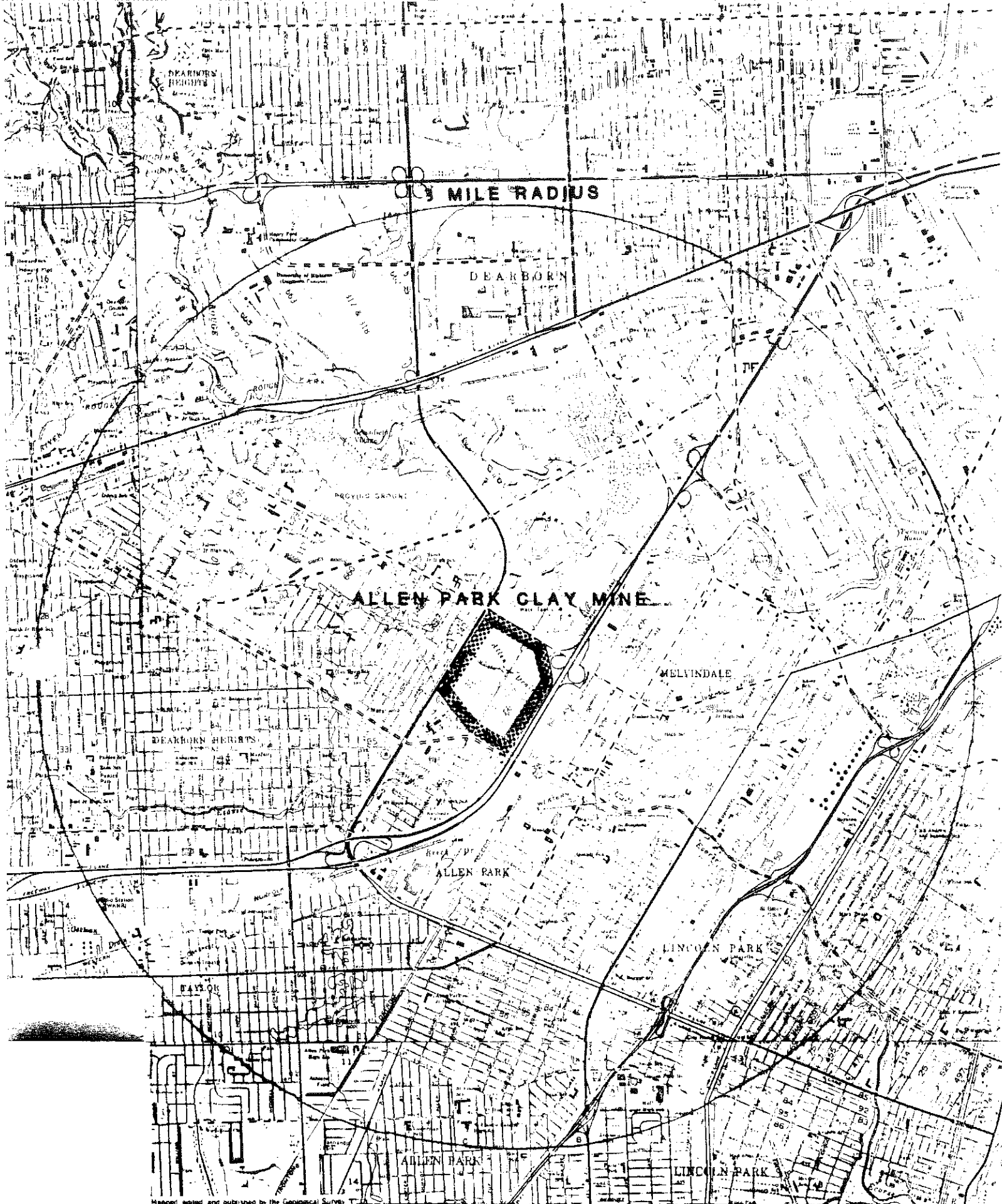
### Potential for Human Exposure Via the Ground Water Pathway

The unit is located in an area of southeastern Michigan (Metropolitan Detroit) which has an extensive uniform lacustrine clay deposit that is 80-120 feet thick, underlain by Devonian carbonate formations whose artesian hydrostatic pressure extends upward through the overlying clay. Refer to pages 163-210 of the Part B license application for the discussion of the ideal hydrogeologic conditions which led to the facility groundwater monitoring waiver demonstration. Because the clay deposit is extensive and the underlying groundwater is highly mineralized, Detroit River/Lake Huron sources are the only water supplies used in the area for drinking or any other purpose. There are no groundwater withdrawal wells within three miles of the facility. The regional recharge is via the underlying artesian bedrock. Net precipitation is provided on page 122A of the Part B application. Refer to page 424 for the regional topographic map of the facility which extends out to a three mile radius.

The combination of a thick clay deposit with artesian conditions effectively prohibits the migration of leachate out of the cell. With installation of a double leachate collection system and double liner per the minimum technological requirements, the unit will have triple protection. In addition, run-on/run-off control systems minimize the potential for releases at the unit. Perimeter surface waters are monitored to identify any releases that might occur; thus, corrective action can be taken before human exposure occurs. There has been no food chain contamination due to any prior releases from the unit to groundwater, nor is there any well data indicating a release.







Map made and published by the Geological Survey  
in cooperation with State of Michigan agencies  
Control by USGS, USCGS and City of Detroit

Topography by stereogrammetric methods from aerial photographs  
Photographs by photogrammetric surveys, 1934. Horizontal from partial  
photogrammetric survey, 1934. Vertical from aneroid

Planimetry from 1934. 1934. North American datum  
1:25,000 scale, universal Transverse Mercator projection  
1:25,000 scale, universal Transverse Mercator projection  
1:25,000 scale, universal Transverse Mercator projection

Not to scale. Areas in which only landmarks buildings are shown  
Not to scale. Areas in which only landmarks buildings are shown

U.S. GEOLOGICAL SURVEY  
WASHINGTON, D.C. 20508

424

UNITED STATES GEOLOGICAL SURVEY  
FOR SALE BY THE GEOLOGICAL SURVEY, RESTON, VIRGINIA 20192

MICHIGAN  
QUADRANGLE LOCATION



#### Potential for Human Exposure Via the Surface Water Pathway

Refer to page 424 for the regional topographic map which shows the location of all surface water bodies within a three mile radius of the facility. The principal water body in this area is the Rouge River which is not commercially fished, used for agriculture, nor utilized recreationally. There are no drinking water intakes within a three mile radius. The facility is not located within the 100 year flood plain as indicated on page 154.8A of the Part B license application. Descriptions of the run-on/off control are on pages 155-162 of the application. Quality assurance and construction detail of the dikes is provided on page 154.8A of the application.

The closest bodies of surface water to the unit is the Allen Drain and Tyre Drain which originate on site. Refer to page 388 of the license application for the location of the drains in relation to the disposal cells. The drains have a flow velocity ranging from 0 to 84 cubic feet per second. The drains flow northeast after leaving the site and enter the Rouge River. Surface water in the drains have been sampled on a quarterly basis with the results presented on pages 385-398 of the Part B license application. Information concerning prior releases that may have occurred in the past relating to nearby solid waste operations is provided on pages 380-401 of the application. There has been no food chain contamination due to prior releases from the unit to surface water.

There are certain design and operating features which mitigate the potential for releases to surface waters such as:



1. Run-off control system - volumes of wastewater will be minimized and properly handled to prevent any releases.
2. Inspections - operators and supervisors perform routine inspections of the surface drains, leachate collection and discharge systems and run-on/off control systems to correct potential problems before releases can occur.
3. Training - operators are trained in the proper handling procedures of wastewater discharge, inspection procedures, equipment repair and waste handling.
4. Emergency procedures - operators are trained to respond to releases or potential releases from the unit by taking expeditious containment action.

Since surface waters are not used for drinking water in this area, and preventive and containment procedures are in place, there is a low potential for human exposure resulting from surface water releases.



### Potential for Human Exposure Via the Air Pathway

The only pathway to human exposure from a release of the solid waste (particulates) at the facility is via fugitive air emissions. If contaminants from the facility became airborne, they could be carried into the neighborhood whereupon residents could be subject to inhalation of hazardous constituents. It is estimated that 125,000 people live within a four mile radius of the facility. The wastes are not reactive, volatile, ignitable or incompatible, however, they may include particulate matter susceptible to windblown conditions resulting in fugitive emissions, if they are not handled appropriately.

Various neighborhood organizations have participated in public hearings relating to the possible health and safety hazards at the facility as they relate to hazardous waste operations. As a result of such interest, the City of Dearborn required an analysis to address the question of whether there is an increased cancer incidence among residents of the community neighboring the disposal facility. The analysis prepared by the Biostatistics Unit of the Michigan Cancer Foundation, Division of Epidemiology is provided on pages 428-439, and concludes that there is insufficient evidence to support that residents of Snow Woods are at a higher risk of cancer because of their proximity with the Allen Park Clay Mine Landfill.

Air monitoring has been proposed for the facility to satisfy Michigan Act 64 permit requirements. The proposed plan is provided with this submittal on pages 440-442. Plans to control wind dispersal of particulate matter at the facility is provided on page 162.1A of the license application. The wind rose showing prevailing wind speed and direction is on page 154.6A of the application.

A fugitive dust control program has been proposed for the facility and is provided on pages 443-447. In order to assess the impact of potential fugitive emissions from the hazardous waste unit on the community, the model on page 448 was developed.





## Snow Woods

### Introduction

The Biostatistics Unit of the Michigan Cancer Foundation, Division of Epidemiology analyzed cancer incidence in the Snow Woods Neighborhood Area (1970 Census tracts 825.01 and 825.02) of the city of Dearborn at the request of the Dearborn Health Department. This project was completed as part of a larger study of the possible health and safety hazards posed by the Allen Park Clay Mine Landfill Hazardous Dump site which is adjacent to the Snow Woods Neighborhood. The analysis to be described addresses the question of whether there is an increased cancer incidence among residents of this neighborhood.

### Methods

All cancer cases with the exception of non-melanoma skin cancers diagnosed between 1973 and 1981, by place of residence, were identified from the Michigan Cancer Foundation Cancer Surveillance System. Persons diagnosed with cancer while living within the 1970 census tracts 825.01 or 825.02 were taken to be Snow Woods cancer cases. There were 265 such cases, 264 of which were white and one black. The 4228 (4221 white and 7 black) Dearborn cancer cases consist of persons living within the City of Dearborn at the time of cancer diagnosis. 83,456 (59,614 white and 23,842 black) cancer cases were identified as living in Wayne County at the time of diagnosis and there were 130,948 (106,029 white and 24,919 black) cases identified in the tri-county area (Wayne, Oakland and Macomb counties). All persons identified were classified according to cancer site, age, race, and sex.



Snow Woods cancer cases were further classified according to street address. This was done so that the exact place of residence of each case could be plotted on a map of the Snow Woods neighborhood. The mapping procedure did not produce any clear results. Cancer cases were located around the perimeter of the two census tracts at the time of diagnosis. Fewer cases were found in the center part of both census tracts. This cancer distribution may be due to the distribution of family housing in these areas.

Using the 1973-1981 frequencies of cancer in the defined populations and population estimates for 1973-1981 (based on linear interpolation between the 1970 and 1980 census data for these areas) cancer incidence rates were calculated by age, sex and cancer site. Because there were so few blacks in Snow Woods, the nature of the census data precluded separating the Snow Woods population by race. The racial makeup of Dearborn is similar to that of Snow Woods so the Dearborn population was not stratified by race either. Both the Snow Woods and Dearborn populations have few blacks (1.25% and .09% black, respectively). For this reason, only the white Wayne County and white tri-county cancer incidence rates were used in the analysis.

The observed numbers of Snow Woods cancer cases (all races) were compared with the expected number of cases. The expected number of cancers was obtained by applying the cancer incidence rates in Dearborn (all races), Wayne County (whites) and the tri-county area (whites) to the Snow Woods population. This comparison was done by sex and age (<5, 5-9, 10-14, 15-19, 20-24, 25-34, 35-44, 45-54, 55-59, 60-64, 65-74, 75+) for each site group in which there was at least one Snow Woods cancer case.



Standard Morbidity Ratios (SMRs) were calculated for each age, sex and site group category and for all sites combined, as the ratio of the observed to expected number of cancers in Snow Woods; the ratio then multiplied by 100. A one-sided statistical test was used to determine whether the SMR was statistically significantly greater than 100 ( $p < .05$ ). The one-sided test was used because only an excess of cancer in the Snow Woods community was of interest.

### Results

Of the 31 site groups analyzed (including all sites combined) 25 showed no statistically significant excess of cancer cases. These sites include: all sites combined, colon, pancreas, lung and bronchus, female breast, cervix, corpus uteri, leukemia, buccal cavity and pharynx, esophagus, anus, gallbladder, other biliary sites (including bile ducts, ampulla of Vater and biliary tract, NOS), larynx, soft tissue, skin melanoma, ovary, testis, bladder, kidney, other nervous system (including cranial nerve, spinal cord, cerebral and spinal meninges, and nervous system, NOS), thyroid, Hodgkin's lymphoma, non-Hodgkin's lymphoma, and ill-defined sites.

For those sites with at least one cancer in both sexes, a statistically significant ( $p < .05$ ) excess of brain cancers among all persons (Table 1) was observed. While approximately 4 brain cancers were expected, (regardless of comparison group), 12 were observed, resulting in an SMR of approximately 300. For rectum, stomach and liver cancers, excesses were seen with two out of the three comparison groups. Analyses using tri-county whites and Dearborn residents resulted in significant excesses of cancer of the rectum and liver. In the case of stomach cancer, a significantly increased SMR was reported when comparisons were made with tri-county and



Wayne County whites. For all sites in which statistical significance was reached in at least one comparison group, SMRs were elevated (though not statistically significantly) regardless of comparison group.

Cancers in three site groups were found to be in excess only in males, however, the excesses were not seen consistently across all comparison groups. Cancers of the stomach and prostate in males were statistically significantly in excess ( $p < .05$ ) when the expected number of cancers was calculated based on tri-county white and Wayne County white cancer incidence rates. Ten stomach cancers were observed while only about 4.5 were expected and 26 prostate cancers were observed while only about 17.4 were expected (Table 2). A statistically significant excess was not found for the same sites when the comparison was made based on Dearborn cancer incidence rates, however increases were found. Snow Woods males were also shown to have a statistically significant ( $p < .05$ ) excess of multiple myeloma cases when compared with expected numbers calculated using Wayne County white cancer incidence rates (4 observed and 1.3 expected, an SMR of 300.3). An excess of soft tissue cancer cases was also observed, but only when the comparison group was Dearborn. Note that the numbers of observed cancers for these two sites are small.

Female residents of Snow Woods were shown to have an excess incidence of cancer of the liver (Table 1). This result was shown regardless of the comparison group used. While 3 liver cancers were observed among these women, only about 0.5 were expected, a statistically significant excess at  $p < .05$ .





The brain is the only cancer site for which both males and females were seen to have a statistically significant ( $p < .05$ ) excess (Table 2). This excess is shown with all of the comparison populations used. Six brain cancer cases were observed among both the male and female residents of Snow Woods while only about 2 brain cancers were expected for each sex group. The excess occurred in the <5 and 25-34 year age groups for males and the 65-59 and 65-74 year age groups for females.

### Discussion

It can be seen, from the results presented above, that the only statistically significant excess of cancer consistently found in the Snow Woods population is for brain cancer in both males and females and for liver cancer in females. Also shown in the above presentation is that statistical significance is influenced by the comparison group used in the analysis. It is important to note that expected values are calculated using incidence rates which are, in turn, based on population estimates for intercensal years. The reliability of such an estimate may vary with the population under study. The accuracy of the incidence rates and, therefore, the expected numbers will depend on the accuracy of the population estimates. Further caution should be taken when interpreting these results because of the large number of statistical tests performed. Each test has a 5% probability of being rejected (resulting in a significant excess of cancers) by chance alone. The large number of statistical tests carried out further increases the possibility that statistically significant SMRs occurred by chance.



The results presented do not take into account the length of residence in the Snow Woods neighborhood for each cancer case. This information is not available through the Cancer Surveillance System. Therefore, there is no assurance that cancer cases are long-term residents of the area of concern. Furthermore, long-term residents of this neighborhood who moved from these census tracts and subsequently developed cancer could not be identified. A number of other factors could not be controlled for in this analysis including cigarette smoking, alcohol use, and occupation, all of which may be related to cancer occurrence. For example, the development of liver cancer has been linked to hepatitis B virus, alcohol and aflatoxin exposures. (Schottenfeld and Fraumeni, Cancer Epidemiology and Prevention. W.B. Saunder Co., Philadelphia, 1982). Thus, it is impossible to implicate any one factor, such as the hazardous waste dump, as the causal factor resulting in the excess number of cancers on the basis of this investigation.

Studies have shown that systemic injection of certain chemicals into experimental animals results in a high incidence of nervous system tumors. These chemicals include N-nitrosamide, dialkylaryltriazines, azo, azoxy and hydrazo compounds, and a polycyclic aromatic hydrocarbon. Epidemiologic investigations have reported an association between brain tumors and x-ray exposure, lead (in children), barbituates, work in rubber manufacturing and vinyl chloride exposure. (Schottenfeld and Fraumeni, Cancer Epidemiology and Prevention. W.B. Saunder Co., Philadelphia, 1982).

Based on the above results and discussion, there is insufficient evidence to conclude that the residents of the Snow Woods neighborhood are at a higher risk of cancer because of their association with the Allen Park



~~Way Mine Landfill Hazardous Dump~~ than residents of Dearborn, or white  
~~residents of either Wayne County or the entire tri-county area.~~ However,  
the findings regarding the increased incidence of brain tumors in both sexes  
and of liver cancer in females may warrant further investigation.



Table 1

**Observed and Expected Number of Cancers and Age-Adjusted SMR's  
for Snow Woods by Sex, Site and Comparison Population  
for those Sites with at Least One Cancer in Each Sex Group**

	<u>Total</u>			<u>Males</u>			<u>Females</u>		
	<u>OBS</u>	<u>EXP</u>	<u>SMR</u>	<u>OBS</u>	<u>EXP</u>	<u>SMR</u>	<u>OBS</u>	<u>EXP</u>	<u>SMR</u>
<u>All Sites</u>									
Tri-County Whites	265	270.2	98.1	143	129.5	110.4	122	140.7	86.7
Wayne County Whites	265	270.3	98.0	143	131.0	109.1	122	139.3	87.6
Dearborn	265	271.3	97.7	143	127.2	112.4	122	144.0	84.7
<u>Lung/Bronchus</u>									
Tri-County Whites	43	42.4	101.3	32	30.6	104.5	11	11.8	93.2
Wayne County Whites	43	43.6	98.7	32	32.1	99.6	11	11.4	96.1
Dearborn	43	39.3	109.5	32	28.8	111.0	11	10.4	105.4
<u>Colon</u>									
Tri-County Whites	29	24.0	120.7	14	12.4	113.1	15	11.6	128.9
Wayne County Whites	29	23.4	124.1	14	11.9	117.9	15	11.5	130.5
Dearborn	29	26.8	108.2	14	14.1	99.4	15	12.7	117.9
<u>Rectum/Rectosigmoid</u>									
Tri-County Whites	19	12.2	156.0*	11	7.2	152.5	8	5.0	160.9
Wayne County Whites	19	12.5	151.8	11	7.5	147.4	8	5.1	158.0
Dearborn	19	12.1	157.6*	11	6.4	171.7	8	5.7	141.6
<u>Stomach</u>									
Tri-County Whites	13	6.6	198.5*	10	4.4	228.5*	3	2.2	138.3
Wayne County Whites	13	6.8	190.1*	10	4.7	214.6*	3	2.2	137.6
Dearborn	13	7.9	165.2	10	5.5	181.2	3	2.3	127.9
<u>Brain</u>									
Tri-County Whites	12	3.9	311.7*	6	2.1	283.6*	6	1.7	347.4*
Wayne County Whites	12	4.0	301.5*	6	2.2	267.7*	6	1.7	345.4*
Dearborn	12	4.2	287.1*	6	2.1	286.8*	6	2.1	287.8
<u>Non-Hodgkin's Lymphoma</u>									
Tri-County Whites	8	7.3	109.3	4	3.9	103.2	4	3.4	116.4
Wayne County Whites	8	6.9	115.6	4	3.6	111.0	4	3.3	120.9
Dearborn	8	7.5	107.1	4	4.3	93.6	4	3.2	124.5





Table 1 (Continued)

	<u>Total</u>			<u>Males</u>			<u>Females</u>		
	<u>OBS</u>	<u>EXP</u>	<u>SMR</u>	<u>OBS</u>	<u>EXP</u>	<u>SMR</u>	<u>OBS</u>	<u>EXP</u>	<u>SMR</u>
<u>Pancreas</u>									
Tri-County Whites	7	6.8	103.7	6	3.8	156.9	1	2.9	34.1
Wayne County Whites	7	6.8	102.6	6	3.9	154.7	1	2.9	34.0
Dearborn	7	5.7	122.8	6	3.1	195.3	1	2.6	38.1
<u>Leukemia</u>									
Tri-County Whites	6	7.1	84.6	3	4.2	70.9	3	2.9	104.6
Wayne County Whites	6	7.0	85.7	3	4.2	70.9	3	2.8	108.4
Dearborn	6	6.9	87.2	3	3.7	82.0	3	3.2	93.2
<u>Ill-Defined Sites</u>									
Tri-County Whites	6	8.0	75.0	2	4.1	48.7	4	3.9	102.9
Wayne County Whites	6	8.1	73.7	2	4.2	47.6	4	3.9	101.7
Dearborn	6	6.5	91.7	2	3.0	67.2	4	3.6	112.3
<u>Buccal Cavity/Pharynx</u>									
-County Whites	5	8.6	58.1	4	6.0	66.3	1	2.6	38.9
Wayne County Whites	5	9.4	53.2	4	6.7	59.4	1	2.7	37.6
Dearborn	5	6.8	73.1	4	4.7	85.8	1	2.2	45.9
<u>Liver</u>									
Tri-County Whites	4	1.4	296.3*	1	.9	111.2	3	.5	660.8*
Wayne County Whites	4	1.6	246.9	1	1.1	87.1	3	.5	638.3*
Dearborn	4	.9	434.8*	1	.6	180.8	3	.4	802.1*
<u>Skin Melanoma</u>									
Tri-County Whites	3	4.8	62.0	1	2.6	38.5	2	2.2	89.2
Wayne County Whites	3	4.1	74.1	1	2.1	47.2	2	1.9	103.6
Dearborn	3	4.1	73.4	1	2.0	49.3	2	2.1	97.1
<u>Other Biliary</u>									
Tri-County Whites	2	1.0	204.1	1	.5	190.5	1	.5	223.2
Wayne County Whites	2	1.1	190.5	1	.6	175.8	1	.5	206.6
Dearborn	2	1.0	206.2	1	.4	236.4	1	.5	183.5
<u>Larynx</u>									
i-County Whites	2	4.8	41.6	1	4.0	25.1	1	.8	122.6
Wayne County Whites	2	5.3	38.0	1	4.5	22.4	1	.8	123.6
Dearborn	2	3.0	66.9	1	2.3	44.3	1	.7	136.6

\* SMR is significantly greater than 100 (p<.05)



Table 2

Observed and Expected Number of Cancers and Age-Adjusted SMR's for Snow Woods  
by Sex, Site and Comparison Population for Sex-Specific Sites  
and Sites with at Least One Observed Cancer in Males Only

	<u>Males</u>		
	<u>OBS</u>	<u>EXP</u>	<u>SMR</u>
<u>Prostate</u>			
Tri-County Whites	26	17.5	148.4*
Wayne County Whites	26	17.3	150.2*
Dearborn	26	20.3	127.9
<u>Bladder</u>			
Tri-County Whites	4	10.0	39.8
Wayne County Whites	4	9.8	41.0
Dearborn	4	8.8	45.3
<u>Kidney</u>			
Tri-County Whites	4	3.6	110.2
Wayne County Whites	4	3.6	111.7
Dearborn	4	2.6	155.8
<u>Multiple Myeloma</u>			
Tri-County Whites	4	1.5	266.7
Wayne County Whites	4	1.3	300.3*
Dearborn	4	1.7	240.7
<u>Esophagus</u>			
Tri-County Whites	3	2.1	145.1
Wayne County Whites	3	2.3	130.2
Dearborn	3	1.7	173.9
<u>Soft Tissue</u>			
Tri-County Whites	2	.6	363.0
Wayne County Whites	2	.6	333.3
Dearborn	2	.3	298.1
<u>Hodgkin's Lymphoma</u>			
Tri-County Whites	2	1.2	162.2
Wayne County Whites	2	1.1	178.9
Dearborn	2	1.6	127.6



Table 2 (Continued)

	<u>Males</u>		
	<u>OBS</u>	<u>EXP</u>	<u>SMR</u>
<u>Gallbladder</u>			
Tri-County Whites	1	.3	306.8
Wayne County Whites	1	.4	244.5
Dearborn	1	.3	326.8
<u>Testis</u>			
Tri-County Whites	1	1.1	87.8
Wayne County Whites	1	1.0	95.3
Dearborn	1	1.5	65.0

\* SMR is significantly greater than 100 ( $p < .05$ )



Table 2

**Observed and Expected Number of Cancers and Age-Adjusted SMR's for Snow Woods  
by Sex, Site and Comparison Population for Sex-Specific Sites  
and Sites with at Least One Observed Cancer in Females Only**

	<u>Females</u>		
	<u>OBS</u>	<u>EXP</u>	<u>SMR</u>
<u>Breast</u>			
Tri-County Whites	35	38.8	90.3
Wayne County Whites	35	37.8	92.6
Dearborn	35	44.2	79.2
<u>Corpus Uteri</u>			
Tri-County Whites	11	14.1	78.1
Wayne County Whites	11	12.8	85.9
Dearborn	11	15.8	69.6
<u>Cervix</u>			
Tri-County Whites	6	13.7	43.9
Wayne County Whites	6	14.3	42.1
Dearborn	6	10.8	55.8
<u>Ovary</u>			
Tri-County Whites	2	6.2	32.0
Wayne County Whites	2	5.2	38.5
Dearborn	2	5.3	37.4
<u>Thyroid</u>			
Tri-County Whites	2	2.3	86.2
Wayne County Whites	2	2.0	100.8
Dearborn	2	1.8	110.1
<u>Anus</u>			
Tri-County Whites	1	.4	255.8
Wayne County Whites	1	.4	255.1
Dearborn	1	.4	279.3
<u>Other Nervous System</u>			
Tri-County Whites	1	.1	917.4
Wayne County Whites	1	.1	1333.3
Dearborn	1	.3	302.1







Ford Motor Company

2001 Miller Road  
Dearborn, Michigan 48121

November 28, 1984

Mr. Allen Greenberg  
Air Pollution Control Division  
Wayne County Health Department  
1311 E. Jefferson Avenue  
Detroit, MI 48207

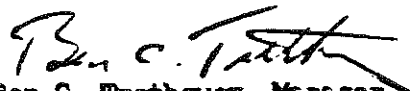
Subject: Allen Park Clay Mine Air Monitoring Program

Dear Mr. Greenberg:

The attached program summary is proposed to satisfy Act 64 air monitoring requirements for the hazardous waste disposal facility at the Clay Mine. The program is based on Tom Shoens' October 30, 1984 recommendations letter and a November 9, 1984 meeting between Tom Shoens, Dave Miller of my office, and Ken Dowell of the Stationary Source Environmental Control Office.

If you have any questions on this program, please contact Mr. Kenneth E. Dowell at 322-1319.

Yours very truly,

  
Ben C. Trethevey, Manager  
Mining Properties Department

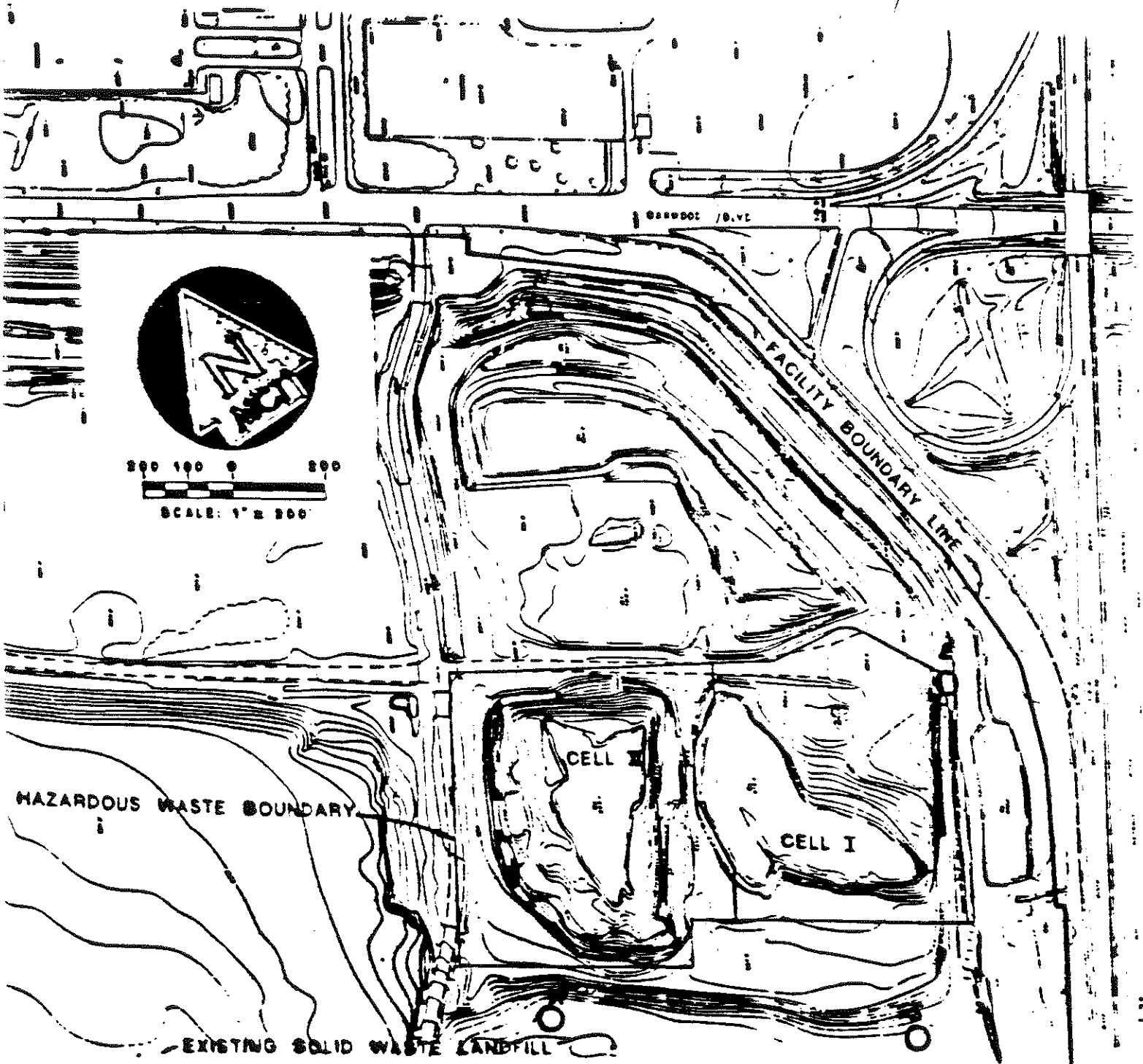
Attachments

cc: L. AuBuchon, MNR  
T. Shoens  
D. Miller  
V. E. Sussman



Fort Allen Park Clay Mine  
Hazardous Waste Disposal Facility  
Air Monitoring Program

○ High Volume Sampling Locations





Ali Park Clay Mine  
Hazardous Waste Disposal Facility  
Air Monitoring Program

Hardware

Four high-volume air samplers with flow rate controllers and well-type samplers.

Monitors located on disposal area perimeter as noted on attached plan.

Platforms to support each sampler 10 feet above ground.

Frequency

First quarter, once every third day, every other sample on NAMS Schedule.

Second, third, and fourth quarter, once every sixth day on NAMS Schedule.

Parameters

Routine analyses

- Total suspended particulate (TSP)
- Lead
- Chromium
- Cadmium

As Needed Basis

If TSP is greater than  $150 \mu\text{g}/\text{m}^3$  and there is active disposal of wastes which are hazardous due to metals content (e.g., Ni when and if F006 wastewater sludge is disposed)

- Hexavalent chromium (only if significant total chromium is present)
- Nickel
- Copper

Demonstration analyses for three selected sampling days during the first sampling month~~s~~ only

- Cyanide
- Phenols

Miscellaneous

Wind speed and direction will be determined locally, either on-site or at the new SSEC Office at Greenfield and Rotunda.

The samplers will be located, operated, calibrated, and audited according to applicable Federal regulations.

All filters and records pertaining to the study will be retained for two years.

Data will be reported quarterly and will be submitted during the month after each quarter.

11/14/84





Ford Motor Company

3001 Miller Road  
Dearborn, Michigan 48121

July 17, 1985

Mr. Al Greenberg  
Wayne County Health Department  
Air Pollution Control Division  
1311 East Jefferson  
Detroit, Michigan 48207

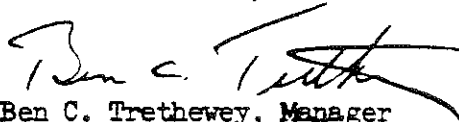
Subject: Ford Allen Park Clay Mine  
Fugitive Dust Control Program

Dear Mr. Greenberg:

Enclosed please find the subject facility's Fugitive Dust Control Program as required by the Michigan Air Pollution Control Commission Rule 336.1373.

Should you have any questions, please contact Mr. Joe Lennon at (313) 322-1227.

Yours very truly,

  
Ben C. Trethewey, Manager  
Mining Properties Department

DSM:dp

Enclosures

bcc: Messrs. J. A. Esper  
G. Kircos  
R. P. Miller, MDNR  
V. H. Sussman





Fugitive Dust Control Program

Ford Motor Company - Allen Park Clay Mine  
17250 Oakwood Blvd.  
Allen Park, Michigan 48120

Facility Operator:

Ben C. Trethewey  
Telephone: (313) 594-2242  
Room 2042, R.O.B.  
3001 Miller Road  
Dearborn, Michigan 48121

Facility Map:

Refer to Attachment I

Facility Description:

- Site activities include:
- 1) 17 acre hazardous waste landfill
  - 2) 9 acre non-hazardous solid waste landfill
  - 3) 16 acre clay mining operation

Fugitive Dust Control Measures:

1) Hazardous Waste Landfill

Waste is covered daily to prevent waste materials from becoming airborne. Active truck dumping traffic areas are kept damp by daily spraying



## Fugitive Dust Control Program (cont'd)

(weather permitting) using the water wagon to minimize fugitive dust emissions. The water wagon is available on a full time basis, and is utilized as needed, continually if required. Records of the water wagon usage are on file at the facility. Incoming particulate waste is watered down at the loading site to minimize potential fugitive dust emissions during the hauling, dumping and bulldozing stages.

### 2) Non-hazardous Landfill

Active work areas are restricted in size (no more than 3 acres) to limit exposure of waste materials to the wind. The active truck dumping traffic areas are kept damp by daily spraying (weather permitting) using the water wagon to minimize potential fugitive dust emissions. The water wagon is available on a full time basis, and is utilized as needed, continually if required. Records of the water wagon are on file at the facility. The incoming particulate waste is watered down at the loading site to minimize potential fugitive dust emissions during hauling, dumping, and bulldozing stages. The inactive work areas receive intermediate cover or other treatment (wetting or dust suppressant) to prevent the waste materials from becoming airborne. Areas where final grades for the landfilling activity are established, receive a clay cap and are seeded for vegetation.

### 3) Clay Mining Operation

Excavated clay is water saturated and loaded directly into the trucks for offsite transportation.



Fugitive Dust Control Program (cont'd)

4) Materials Handling and Transporting

As a landfill, the facility does not operate transportation equipment. However, certain operational procedures are employed to control potential fugitive dust emissions resulting from the trucking of waste materials:

a) Incoming particulate wastes are watered down at the loading site.

b) Open bed trucks with particulate wastes utilize covers to prevent loss of material while in transit.

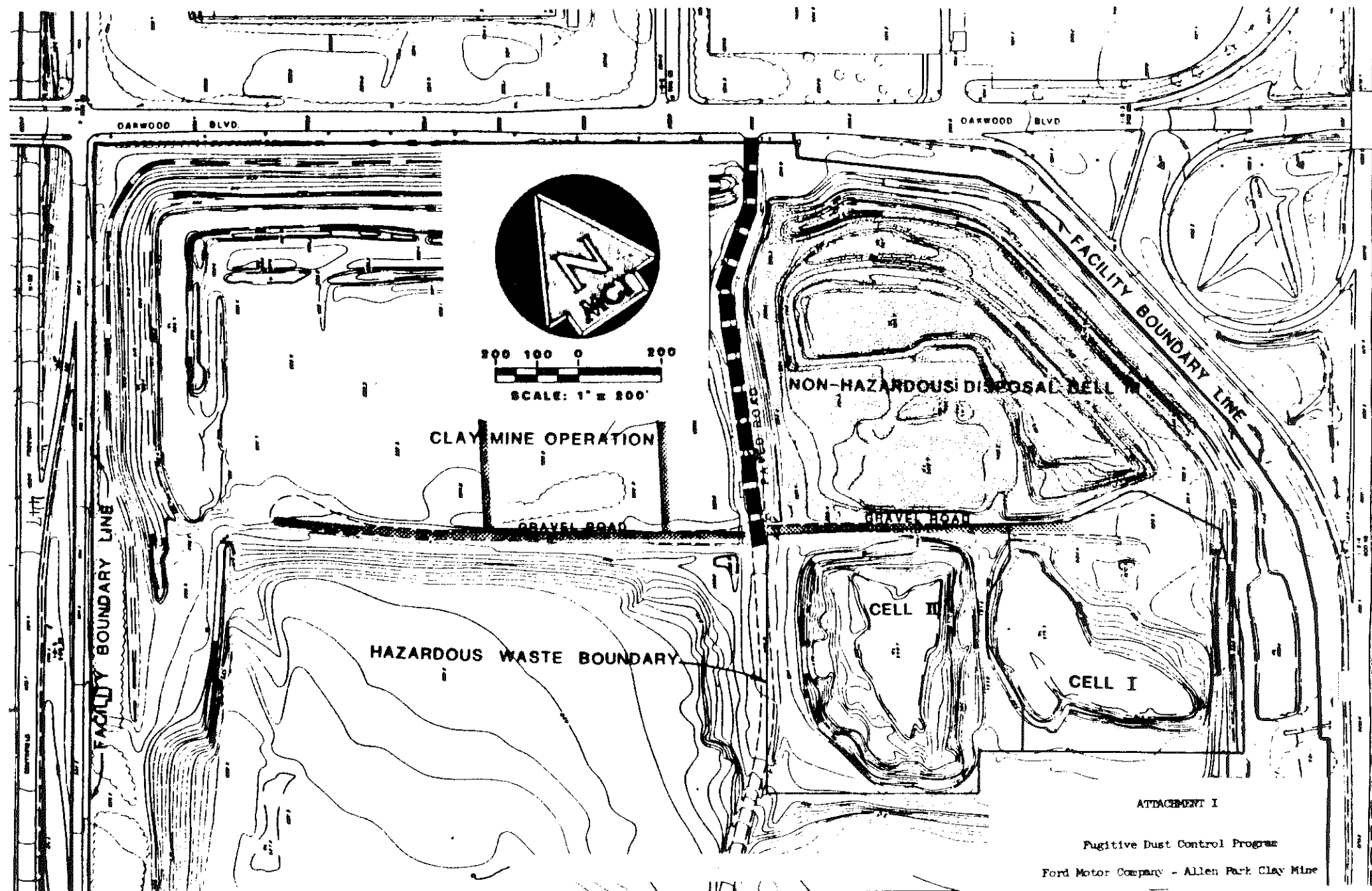
c) Maximum speed limit signs are posted along the entrance road (15 mph).

5) Roads and Lots

a) A water wagon is employed (weather permitting) to keep the unpaved haul roads damp. The wagon is available on a full time basis and is utilized as needed. Records of the water wagon usage are on file at the facility. The unpaved haul roads are maintained using a road grader to remove accumulated mud and by applying a coarse aggregate (preferably 3x or 3A slag).

b) The entrance road to the facility is paved for a distance of 1,000 feet and kept clean by the use of a high pressure water spray on the water wagon.









ALLEN PARK CLAY MINE  
FUGITIVE AIR EMISSION  
ENVIRONMENTAL ASSESSEMENT

The ambient impact of fugitive dust from incoming material was assessed for a 24 hour period using traditional emission factors and manual dispersion estimating procedures. Key assumptions were:

- > 200 tons/day of incoming wetted material
- > material unloaded and spread over a 100 by 100 foot area
- > storage pile is exposed for approximately 8 hours before daily capping

Recommended emission factors from "Report on Emission Factors Wayne County Nonattainment Study" 1984 by TRC (TRC Report No. 1800-L81-00) were used. The emission factor  $Q_u$  for unloading operations is .004608 lb/ton from the equation:

$$Q_u = \frac{.0018 * \frac{S}{5} * \frac{u}{5} * \frac{h}{10}}{(M/2)**2} \quad \text{lb/ton}$$

Where:

S	Silt content ( $\leq 200$ mesh)	50 %
u	Wind speed	20 mph
h	Drop height	4 ft.
M	Unbound moisture content %	5 %

The stationary pile emission factor  $Q_p$  is 32 lb/acre/hour from the equation:

$$Q_p = 1.6 * u \quad \text{lb/acre/hr}$$

Where:

u	Wind speed	20 mph
---	------------	--------

Downwind concentrations were estimated using "C" stability class and dispersion coefficients from "Workbook of Atmospheric Dispersion Estimates" by D. Bruce Turner (Publication NO. 999-AP-26, 1969).

The resulting 24 hour estimates are listed below. The total ambient impact at one kilometer downwind of the site is well below the primary particulate standard of 260 micrograms per cubic meter (TSP).

Downwind distance (km)	Unloading (ug/m <sup>3</sup> )	Pile (ug/m <sup>3</sup> )	Total (ug/m <sup>3</sup> )
1	.027	1.73	1.76
2	.008	0.48	0.49
3	.004	0.24	0.24



#### Potential for Human Exposure from Subsurface Gas Release

Past disposal practice at the facility restricted acceptable waste materials to non-putrescible inert mineral waste. Refer to page 378 of the Part B license application for the waste types and quantities. Generation of gas is highly unlikely and there is an extremely low potential for a release of subsurface gas.

#### Potential for Human Exposure from Releases to Soil

Releases to the soil resulting from operations at the unit could potentially result from:

1. Fugitive emissions - Refer to page 427.
2. Off-site transport - Refer to page 450.
3. On-site transport - Trucks may spill their load which would trigger the spill clean-up procedures or truck tires and undercarriage may get covered with waste, and the truck may track waste out of the unit. Refer to pages 450-451.
4. Contaminated run-off - Refer to page 425 concerning surface waters.
5. Direct contact - Security procedures to limit public access to the unit are provided on pages 268-270 of the license application.

Soil sampling has consisted of sampling of bottom sediments in the surface drains, the results of which are provided in Section L pages 369-401 of the license application.



Crops are not grown adjacent to the facility so there is no potential for food chain contamination. There have been no major releases that resulted in soil contamination. The potential for human exposure resulting from soil contamination at or near the facility is very low.

#### Potential for Human Exposure from Transportation - Related Releases

Transportation of the incoming waste is via the Southfield Expressway or Interstate 94. The entrance to the facility is from Oakwood Blvd. No travel through residential areas is required. Refer to page 71 of the Part B license application for the transport route within the facility. As stated previously, the region is underlain with a thick clay bed and groundwater is not utilized for drinking water or other purposes. Surface waters within the three mile radius of the facility are not used for drinking water. Therefore, the potential for human exposure via groundwater and surface water is very low.

The transportation vehicles are required to be covered to prevent fugitive waste emissions while in transit. Clean-up procedures for transportation spills are as follows:

- . Notify Ford Transportation and Technical Services (T&TS) supervision.
- . T&TS will supply equipment (front loader, vacuum truck, shovels) and manpower to contain and clean up the spill.

The two types of transport units used to date are as follows:

- . Five axle dump trucks with 24 yd.<sup>3</sup> capacity boxes.
- . Single (rear) axle trucks with 5 yd.<sup>3</sup> capacity boxes.

Future transport units are likely to include 5-20 yd.<sup>3</sup> roll-off boxes.



A truck wheel wash is scheduled for construction which will mitigate any potential track out of waste from the facility.

To date, there have been no transportation spills involving hazardous waste in route to the facility.

Materials are unloaded at the fill area. Any spillage which might occur during unloading is placed in the landfill with equipment located on-site.

#### Potential for Human Exposure from Worker-Management Practices

There have been no reports of worker illnesses, accidents, or injuries related to the operation of the hazardous waste facility. The training program for the workers is designed to ensure safe handling of wastes and minimize the potential for releases at the facility. Description of the program begins on page 294 of the license application. One of the training requirements is that workers be familiar with contingency and emergency plans as described in the license application beginning on page 277.





STATE OF MICHIGAN



JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING  
BOX 30028  
LANSING, MI 48909

RONALD O. SKOOG, Director

NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON  
E. R. CAROLLO  
MARLENE J. FLUHARTY  
STEPHEN F. MONSMA  
O. STEWART MYERS  
RAYMOND POUPORE  
HARRY H. WHITELEY

May 20, 1985

Ms. Edith Ardiente, Chief  
Technical, Programs Section  
U.S. EPA - Region V  
230 S. Dearborn  
Chicago, Illinois 60604

RE: MID980568711  
Ford Allen Park Clay Mine

Dear Ms. Ardiente:

As requested by your office, enclosed are the completeness comments on the liner compatibility test report for the above-referenced facility.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Peter Quackenbush, Engineer  
Technical Services Section  
Hazardous Waste Division  
(517) 373-2730

Enclosure  
cc: Mary Higgins

RECEIVED

MAY 24 1985

SOLID WASTE BRANCH  
U.S. EPA, REGION V

228-29



FORD ALLEN PARK CLAY MINE LINER COMPATIBILITY TEST REPORT COMMENTS

1. The chemical composition of the anticipated leachate along with the rationale for that composition must be provided in the report to comply with 40 CFR 264.301(a)(1)(i).
2. The report must specify whether the percent of change in the liner properties during the leachate resistance testing were cumulative with time of exposure to comply with 40 CFR 264.301(a)(1)(i).



MAY 20 1985

P 557 049 080

5HS-13

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

B. C. Trethewey, Manager  
Ford Motor Company Allen  
Park Clay Mine  
3001 Miller Rd., Room 2042  
Dearborn, MI 48121

Re: Additional New Requirements  
Hazardous and Solid Waste  
Amendments of 1984 (HSWA)  
Ford Motor Company Allen  
Park Clay Mine  
MID 980 568 711

Dear Mr. Trethewey:

On November 8, 1984, the Hazardous and Solid Waste Amendments of 1984 (HSWA) were signed into law. These Amendments add a number of requirements for your facility which must be addressed before we can issue a permit. A formal request for the submittal of Part B of the Resource Conservation and Recovery Act (RCRA) permit application for treatment, storage, or disposal of hazardous waste had already been made for the above-referenced facility.

The purpose of this letter is to notify you that your RCRA Part B Permit Application must be revised to incorporate the requirements of the Hazardous and Solid Waste Amendments of 1984. The revisions to your Part B application should be submitted no later than August 8, 1985.

This request for a revision to your RCRA Part B permit application and the associated due date of August 8, 1985, for submitting your revisions are related only to the new requirements brought about by the 1984 Amendments. In the meantime, the review and processing of the Part B application you have already submitted will continue and you may be required to make corrections and revisions to your original Part B application that will need to be submitted prior to August 8, 1985.

228-26



5HS-13:TPS:SWB:MI R.TRAUB

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**SENDER INSTRUCTIONS**

Print your name, address, and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.



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USE, \$300

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United States  
Environmental Protection Agency  
Region V  
230 South Dearborn Street  
Chicago, Illinois 60604



PS Form 3811, July 1983 447-845

**SENDER: Complete items 1, 2, 3 and 4.**

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☐ Show to whom, date and address of delivery.  
 2. ☐ Restricted Delivery.

## 3. Article Addressed to:

B. C. Trethewey, manager  
 Ford Motor Company Allen Park Clay  
 Mine, 3001 Miller Rd., Room 2042,  
 Dearborn, MI 48121

## 4. Type of Service:

- ☐ Registered ☐ Insured  
☒ Certified ☐ COD  
☐ Express Mail

## Article Number

P 557 099 080

Always obtain signature of addressee or agent and  
**DATE DELIVERED.**

## 5. Signature — Addressee

X

## 6. Signature — Agent

X

## 7. Date of Delivery

## 8. Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT

5HS-13  
 P 557 099 080 MI UNIT  
 R. TRAUB

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED  
 NOT FOR INTERNATIONAL MAIL

(See Reverse) MID 980-568-711  
 Ford Motor Co.

★ U.S.G.P.O. 1983-403-517

Sent to	B. C. TRETHEWEY, MGR.
Street and No.	3001 Miller Rd., RM 2042
P.O., State and ZIP Code	Dearborn, MI 48121
Postage	\$ 1.07
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.70
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$ 2.52
Postmark or Date	

PS Form 3800, Feb. 1982



Enclosed, for your information, is a fact sheet, a brief guidance document, and a copy of selected statute sections on the new requirements. I urge you to examine the enclosures as soon as possible, because target dates under HSWA begin as early as May 8, 1985. For two of the new requirements, exposure assessments and the double liner requirements, additional guidance being developed by EPA Headquarters will be provided to land disposal permit applicants as soon as they become available.

Please contact the previously identified permit writer with our Agency for additional information.

Sincerely yours,

*David Stringham*  
David A. Stringham, Acting Chief  
Solid Waste Branch

Enclosures

INITIALS	TYPIST	AUTHOR	STU #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF	TPS CHIEF	WMB CHIEF	WMD DIRECTOR
DATE	g.w. 5-1-85	R. J. Havel 5/6/85			MI J. Havel 5-6-85	cm 5/15/85 5/15		



*yellow*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
230 SOUTH DEARBORN ST.  
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

5HS-13

MAY 01 1985

Mr. Alan J. Howard, Chief  
Technical Services Section  
Hazardous Waste Division  
Michigan Department of Natural Resources  
P.O. Box 30028  
Lansing, Michigan 48909

RE: Hazardous Waste Permit Application  
Ford MOTOR-Allen PARK  
Allen Park MI  
MI D 980 568 711

Dear Mr. Howard:

Enclosed are two copies of additional information provided by the referenced applicant in response to our January 30, 1985 letter. Please determine whether the application is now complete, and return to us a draft letter of response as soon as possible, but not later than June 5, 1985.

If you have any questions on the application, please contact Rich Traub of my staff, at (312) 886-6138.

Sincerely,

*Edith M. Ardiente*

Edith M. Ardiente, P.E.  
Chief, Technical Programs Section

Enclosure(s)

cc: Mary Higgins  
HWDMS Update File

INITIALS	TYPIST <i>g.w.</i>	AUTHOR <i>R. Traub</i>	STU #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF <i>MI</i> <i>Am</i> <i>5-1-85</i>	TPS CHIEF	WMB CHIEF	WMD DIRECTOR
DATE	<i>5-1-85</i>	<i>5/1/85</i>						

228-23

SFL-2



STATE OF MICHIGAN



JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING  
BOX 30028  
LANSING, MI 48909

RONALD O. SKOOG, Director

NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON  
E. R. CAROLLO  
MARLENE J. FLUHARTY  
STEPHEN F. MONSMA  
O. STEWART MYERS  
RAYMOND POUPORE  
HARRY H. WHITELEY

RECEIVED  
APR 15 1985  
WASTE MANAGEMENT  
BRANCH

April 12, 1985

RECEIVED  
APR 16 1985  
WMD-RAIU  
EPA, REGION V

Ms. Edith Ardiente, Chief  
Technical Programs Section  
U.S. EPA - Region V  
230 South Dearborn  
Chicago, Illinois 60604

RE: MID980568711  
Ford Allen Park Clay Mine

Dear Ms. Ardiente:

As requested by your office, enclosed is the completed Part B application completeness checklist and review comments for the above referenced facility.

We recommend that EPA and MDNR meet in the near future with representatives of Ford Motor Company to discuss apparent deficiencies in the proposed design of the landfill liner and constructibility of that design.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Peter Quackenbush, Engineer  
Technical Services Section  
Hazardous Waste Division  
(517) 373-2730

Enclosure

cc: Larry Aubuchon  
Mary Higgins  
Part B File

228-17

COPY



Ford Allen Park Clay Mine Completeness Comments

1. Data must be provided which shows that the liner(s) exceed the minimum strength requirement as required by 270.21(b)(1).
2. The application must provide the results of liner/waste compatibility testing demonstrating that liner strength and performance are still adequate after exposure to waste leachates, as required by 270.21(b)(1).
3. Demonstration must be made that the liner will not be exposed to wind or sunlight or, if exposure is to be permitted, that such exposure will not result in unacceptable liner degradation, as required by 270.21(b)(1).
4. For liquid accumulated in the leak detection system the application must describe the frequency of analysis and the parameters analyzed for to determine if a failure of the primary liner has occurred. If hazardous constituents show up in the leak detection system the Regional Administrator must be notified to comply with 40 CFR 264.302(4)(b).







RECEIVED  
APR 15 1985

WASTE MANAGEMENT  
BRANCH

Ford Motor Company

RECEIVED  
APR 16 1985

3001 Miller Road  
Dearborn, Michigan 48121

April 9, 1985

WMD-RAIU  
EPA, REGION V

Attention: 5HS-13  
U.S. Environmental Protection Agency  
Region V  
230 South Dearborn Street  
Chicago, IL 60604

Re: Liner Compatibility Test Report  
RCRA Part B Application  
Ford Allen Park Clay Mine  
E.P.A. I.D. No. MID980568711

Attention: 5HS-13:

Enclosed please find four copies of the subject waste/liner compatibility test report. Please insert the report between pages 109A and 110A of the above referenced Part B application.

Should you have any questions, please contact Mr. David Miller at (313) 322-0700.

Yours very truly,

  
Ben C. Trethewey, Manager  
Mining Properties Department

DSM:dp

Enclosures

cc: Mr. Al Howard, MDNR

COPY 

228-16



yellow



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
230 SOUTH DEARBORN ST.  
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

5HS-13

MAR 18 1985

Mr. Alan J. Howard, Chief  
Technical Services Section  
Hazardous Waste Division  
Michigan Department of Natural Resources  
P.O. Box 30028  
Lansing, Michigan 48909

RE: Hazardous Waste Permit Application  
FORD Allen Park Clay Mine  
Allen Park, Michigan  
MID 98056871P

Dear Mr. Howard:

Enclosed are two copies of additional information provided by the referenced applicant in response to our January 30, 1985 letter. Please determine whether the application is now complete, and return to us a draft letter of response as soon as possible, but not later than April 12, 1985.

If you have any questions on the application, please contact Rich TRAUB of my staff, at (312) 886-6138.

Sincerely,

*Edith M. Ardiente*

Edith M. Ardiente, P.E.  
Chief, Technical Programs Section

Enclosure(s)

cc: Mary Higgins  
HWDMS Update File

INITIALS	DATE	TIPIST	AUTHOR	STU #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF	TPS CHIEF	WMB CHIEF	WMD DIRECTOR
	3-18-85		R. Traub 3/18/85			MI 3-18-85			





Ford Motor Company

3001 Miller Road  
Dearborn, Michigan 48121

March 1, 1985

Attention: 5HS-13  
U. S. Environmental Protection  
Agency  
Region V  
230 South Dearborn Street  
Chicago, IL 60604

RECEIVED  
MAR 05 1985

WMD-RAIU  
EPA, REGION V

Subject: Liner Engineering Report  
RCRA Part B Application  
Ford Allen Park Clay Mine  
E.P.A. I.D. No. MID 980568711

Attention: 5HS-13:

Enclosed are four copies of amended and supplemental information (Liner Engineering Report) to be inserted into our original RCRA Part B Application as filed with EPA for the subject facility. The report incorporates the double liner standards provided for in the 1984 RCRA amendments. The following directions explain which original pages are to be removed or replaced and which amended or supplemental pages are to be included into the application. Four copies of the revised design drawings are being sent to you under separate cover.

Compatibility test data related to liner selection will be provided to you in the near future.

- 1) Replace Table of Contents and List of Attachments with pages i, ii, and iii.
- 2) Replace pages 99-154 with pages 99A-154.9A.
- 3) Replace pages 273A-274A with pages 273B-274B.

COPY - 2

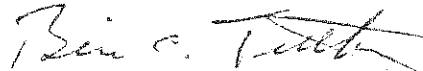
228-13



- 4) Replace page 285A with page 285B.
- 5) Replace pages 346-347 with pages 346A-347.1A.

Should you have any questions, please contact Mr. David Miller at (313) 322-0700.

Yours very truly,



Ben C. Trethewey, Manager  
Mining Properties Department

Attachments

cc: Mr. Alan J. Howard, MDNR





JAN 30 1985

Ben C. Tretheway, Manager  
Mining Properties Department  
Ford Motor Company  
3001 Miller Road  
Dearborn, Michigan 48121

RE: Ford Motor Company - Allen Park  
Clay Park  
MID 980 568 711

Dear Mr. Tretheway:

I have received your January 9, 1985, letter in which you requested an extension until March 1, 1985 for the engineering report regarding the liner. This report and the required detailed plans are required by 40 CFR 270.21(a) as part of your application for a permit under the Resource Conservation and Recovery Act. Recent amendments to that Act affect minimum requirements for liner systems and leachate collection systems.

Your request is hereby approved. Submit the required information by March 1, 1985.

My staff contact for your applications is Mr. Joseph M. Boyle at (312) 886-7457.

Sincerely,

Edith M. Ardiente, P.E.  
Chief, Technical Programs Section

cc: A. Howard, HDR  
J. Johnson, HDR

SUS-13 J Boyle C words 1/24/85

INITIALS	TYPYST	AUTHOR	STU #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF	TPS CHIEF	WMB CHIEF	WMD DIRECTOR
DATE	<i>G.W.</i> <i>1-28-85</i>	<i>S-B</i> <i>1-28-85</i>	<i>TPS</i> <i>8/10/85</i>		<i>TPS</i> <i>8/10/85</i> <i>acting</i>	<i>mmr</i> <i>1-29-85</i>		

*CM 1-28-85*

228-12



STATE OF MICHIGAN



JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING  
BOX 30028  
LANSING, MI 48909

RONALD O. SKOOG, Director

December 26, 1984

NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON  
E. R. CAROLLO  
MARLENE J. FLUHARTY  
STEPHEN F. MONSMA  
O. STEWART MYERS  
RAYMOND POUPORE  
HARRY H. WHITELEY

RECEIVED  
DEC 29 1984

WASTE MANAGEMENT  
BRANCH

Ms. Edith Ardiente, Chief  
Technical, Permits and  
Compliance Section, 5HW-TUB  
U.S. EPA - Region V  
230 South Dearborn  
Chicago, Illinois 60604

Re: MID 980568711  
Ford Allen Park Clay Mine

Dear Ms. Ardiente:

As requested by your office, enclosed is the completed Part B application completeness checklist and comments for the above-referenced facility.

Please call if you have questions.

Sincerely,

Peter Quackenbush, Engineer  
Technical Services Section  
Hazardous Waste Division  
517-373-2730

Enclosure  
cc: Mary Higgins

RECEIVED  
JAN 11 1985

WMD-RAIU  
EPA, REGION V

228 - 10

RECEIVED  
DEC 30 1984  
WASTE MANAGEMENT  
BRANCH

RECEIVED  
JAN 11 1985  
WMD-RALU  
EPA REGION V

Ford Allen Park Clay Mine Completeness Comments

1. The use of a shovel to decontaminate earth moving equipment is not adequate, a method which will remove all hazardous waste and residues must be provided to comply with 40 CFR 264.114.
2. The 10 mil PVC liner proposed for the landfill cover system is not adequate. It does not appear reasonable to assume this liner can be installed without numerous failures due to the lack of puncture and tear resistance of such a thin material. A cover system which has a permeability equal to or less than the bottom liner must be provided to comply with 40 CFR 264.310(a)(5).
3. The application states that the surficial sand aquifer is to be removed and replaced with compacted clay. The engineering drawings must be modified and certified by a professional engineer to show in detail the geometry extent and specifications of this construction to comply with 40 CFR 270.21.
4. The application does not contain detailed plans and an engineering report, certified by a professional engineer, which describes a liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil at any time during the active life of any portion of the landfill that is not an existing portion, as required by 40 CFR 270.21(b)(1).



NOV 21 1984

Mr. Alan J. Howard  
 Chief, Technical Services Section  
 Hazardous Waste Division  
 Michigan Department of Natural  
 Resources  
 P. O. Box 30028  
 Lansing, Michigan 48909

Re: Ford Motor Company  
 Allen Park Clay Mine  
 MID 980568711

Dear Mr. Howard:

Enclosed are two copies of information submitted by the referenced permit applicant. Per the anticipated FY 85 Cooperative Arrangement, please review the information, revise the completeness checklist as necessary, and submit a draft notice of deficiency or completeness by December 28, 1984.

My staff contact for the permit is Joseph M. Boyle at (312) 886-7457.

Sincerely,

ORIGINAL SIGNED BY  
 WILLIAM H. MINER  
 William H. Miner, Chief  
 Technical, Permits and Compliance Section

Enclosures

bcc: M. Higgins, GCMU

5HW-13JBOYLE:ssmith:11/20/84

228-9

WMB 11-20-84

WMB 11/20/84

INITIALS	DATE	TYPIST	AUTHOR	STU #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF	TPS CHIEF	WMB CHIEF	WMD DIR
	11-20-84	AS	JMB			WMB 11/20/84	WMB 11/20/84		





U. S. Environmental Protection Agency  
November 9, 1984  
Page 2

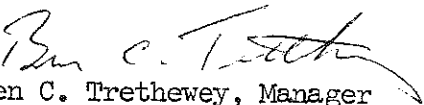
270.21(b)(1)

A liner engineering report utilizing a synthetic membrane has been initiated and will be completed as soon as possible. Per discussions with Mr. Joe Boyle of EPA Region V staff, I understand the due date for submittal of this report will be extended until January 31, 1985, because of the additional field work required. Compatibility test work will commence as soon as the liner engineering report permits, with the resulting data and liner selection to be made available to your office immediately thereafter.

270.21(b)(5)

Insert pages 162.1A and 162.2A after page 162.

Yours very truly,

  
Ben C. Trethewey, Manager  
Mining Properties Department

Attachment

cc: Mr. Alan J. Howard, MDNR





UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
230 SOUTH DEARBORN ST.  
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:  
5HW-13

SEP 21 1984

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Ben C. Trethewey, Manager  
Mining Properties Department  
Ford Motor Company  
3001 Miller Road  
Dearborn, Michigan 48121

Re: Notice of Deficiency  
Ford Motor Company Allen  
Park Clay Mine  
MID 980568711

Dear Mr. Trethewey:

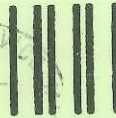
The United States Environmental Protection Agency (U.S. EPA) has completed the initial review of Part B of your application for a permit to be issued under the authority of Section 3005 of the Resource Conservation and Recovery Act (RCRA), as amended. Pursuant to 40 CFR Parts 270.10 and 124.3, this review was conducted to check for completeness of your application against a list of required information found in 40 CFR 270.14 and 270.21.

The U.S. EPA has found your application to be incomplete and further clarification and/or supplemental information is needed for technical review. A summary of the deficiencies is found in the enclosure to this letter.

You must provide four copies of the information required by this notice of deficiency by November 9, 1984. In making your response, provide numbered amended or additional pages to be inserted into your original Part B. Your cover letter must include explicit directions describing which original pages, maps, tables or drawings are to be removed and replaced by your response to these deficiencies. The information must be accompanied by the required certification in 40 CFR 270.11, and design drawings, specifications and engineering studies must be certified by a registered professional engineer (40 CFR 270.14(a)). U.S. EPA will review any claims of business confidentiality under regulations at 40 CFR 2. Failure to furnish the required information in full is grounds for termination of interim status (40 CFR 270.10(e)(5)).



UNITED STATES POSTAL SERVICE  
OFFICIAL BUSINESS



SENDER INSTRUCTIONS

- Print your name, address, and ZIP Code in the space below
- Complete items 1, 2, 3, and 4 on the reverse.
  - Attach to front of article if space permits, otherwise affix to back of article.
  - Endorse article "Return Receipt Requested".
  - adjacent to number.



PENALTY FOR PRIVATE  
USE, \$300

RETURN  
TO



Mr. Joseph M. Boyle

(Name of Sender)

230 South Dearborn Street 5HW-13

(Street or P.O. Box)

Chicago, Illinois 60604

(City, State, and ZIP Code)

- **SENDER:** Complete items 1, 2, 3, and 4.  
Add your address in the "RETURN TO" space on reverse.

**(CONSULT POSTMASTER FOR FEES)**

1. The following service is requested (check one).

☐ Show to whom and date delivered .....

☒ Show to whom, date, and address of delivery .....

- 2.
- ☐
- RESTRICTED DELIVERY**
- .....

(The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$ .....

3. **ARTICLE ADDRESSED TO:**

Mr. Ben C. Trethewey, Manager  
3001 Miller Road  
Dearborn, Michigan 48121

4. **TYPE OF SERVICE:**

☐ REGISTERED ☐ INSURED

☒ CERTIFIED ☐ COD

☐ EXPRESS MAIL

**ARTICLE NUMBER**

P593668356

(Always obtain signature of addressee or agent)

I have received the article described above.

SIGNATURE ☐ Addressee ☒ Authorized agent

5. DATE OF DELIVERY

POSTMARK  
(may be on reverse side)

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE

7a. EMPLOYEE'S INITIALS

Mon - Fri 8:45 AM - 5:00 PM

Sat - Closed

★ GPO: 1982-378-593

RETURN RECEIPT

J. Boyle  
P 593 362 356

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1983-403-517

PS Form 3800, Feb. 1982

Sent to	Mr. Ben C. Trethewey, Mgr.
Street and No.	3001 Miller Road
P.O., State and ZIP Code	Dearborn, Michigan 48121
Postage	\$ 20
Certified Fee	75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	60
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$ 1.55
Postmark or Date	

BW



If you have any questions on this matter, my staff contact for your application is Mr. Joseph Boyle at (312) 886-7457.

Sincerely,

William H. Miner, Chief  
Technical, Permits and Compliance Section

cc: with Enclosure Alan Howard, MDNR  
John Bohunsky, MDNR

5HW-13:JBOYLE:ssmith:9/13/84

AP 9-19-84

INITIALS	DATE	TYPIST	AUTHOR	STU #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF	TPS CHIEF	WMB CHIEF	WMB DIRECTOR
	9-19-84	AP	JMB 9/19/84			WHE 9/20/84	WMB 9/20/84		

9/20/84





NOTICE of DEFICIENCY

FORD MOTOR COMPANY ALLEN PARK CLAY MINE  
MID 980568711

- 270.14(b)(3) The waste analysis plan does not specify sampling methods taken from 40 CFR Part 261, Appendix 1.
- 270.14(b)(5) The inspection schedule does not address inspection of emergency equipment which is identified in the contingency plan.
- 270.14(b)(10) The application does not describe load bearing capacity and surfacing of all access roads to the point of disposal.
- 270.14(c)(2) Exhibit H of the application indicates the presence of a water table within the shallow sand layer near the surface at wells W-102 and W-103. However, the application does not provide identification of this uppermost aquifer, including groundwater flow direction and rate, and the basis for such an identification.
- 270.14(c)(3) The application does not describe a proposed point of compliance or the information required by (c)(2) in the manner required.
- 270.14(c)(4) The application does not address whether any plume of contamination has entered the groundwater from a regulated unit. Note that "ground water" means water below the land surface in a zone of saturation (260.10).
- 270.14(c)(5) The application does not contain detailed plans and an engineering report, certified by a registered professional engineer describing a proposed ground water monitoring system to be implemented to meet the requirements of 264.97. See comment for 270.14(c)(2).
- 270.14(c)(6)  
or (7) or (8) The information does not contain sufficient information, supporting data, and analyses to establish either a detection monitoring program, a compliance monitoring program, or a corrective action program (depending on current groundwater quality between the proposed point of compliance and the property boundary).
- 270.21(b)(1) The application does not contain detailed plans and an engineering report, certified by a registered professional engineer, which describes a liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil at any time during the active life of any portion of the landfill that is not an existing portion. The application incorrectly construes the adjacent soil (i.e. the limit of the excavation) to be the "liner". Since a landfill liner must be constructed of materials that prevent wastes (e.g. leachate) from passing into itself during the active life of the facility, the gray silty clay unit is not acceptable as a liner. Other obstacles



to this concept include the installation of a quality control during installation, and the ability to cover all surrounding earth likely to be in contact with the waste or leachate.

- 270.21(b)(5) The application does not contain detailed plans and an engineering report, certified by a registered professional engineer, describing control of wind dispersal of particulate matter.



STATE OF MICHIGAN



JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING  
BOX 30028  
LANSING, MI 48909

RONALD O. SKOOG, Director

September 12, 1984

NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON  
E. R. CAROLLO  
MARLENE J. FLUHARTY  
STEPHEN F. MONSMA  
O. STEWART MYERS  
RAYMOND POUPORE  
HARRY H. WHITELEY

Mr. William H. Miner  
Technical, Permits and  
Compliance Section, 5MN-TUB  
U. S. EPA - Region V  
230 S. Dearborn  
Chicago, Illinois 60604

RECEIVED  
SEP 18 1984  
WMD-RAIU  
EPA, REGION V

Re: MID980568711  
Ford Allen Park Clay Mine

Dear Mr. Miner:

As requested by your office, enclosed is the completed Part B application completeness checklist and comments for the above-referenced facility.

Please do not hesitate to contact us if you have any questions.

Sincerely,

*Terrance J. McNiel* <sup>mt</sup>

Terrance J. McNiel  
Technical Services Section  
Hazardous Waste Division  
(517) 373-2730

Enclosure

cc: Jodi Traub  
Detroit District  
Part B File

RECEIVED  
SEP 17 1984

COPY  
COPY 2



Ford-Allen Park - Part B Completeness Comments:

1. Provide a description of the liner system, demonstrating that the flow of liquids into the liner will be prevented, 40 CFR 270.21(b)(1) and 264.301(a).
2. Engineering analysis should be provided which provides estimates of total and differential settlement (includes immediate, primary and secondary consolidation), 40 CFR 270.21(b)(1) and 264.301(a)(1)(ii) of the foundation.
3. Provide estimate of bearing capacity and stability of the foundation, demonstrating that the allowable bearing capacity will not be exceeded, 40 CFR 270.21 (b)(1) and 264.301(a)(1)(ii).
4. The estimate of potential for cell bottom blow-out shows a seven inch factor of safety. A larger factor of safety is needed, 40CFR270.21 (b)(1) and 264.301(a)(1)(ii).
5. Demonstrate that the foundation is capable of providing adequate support for construction equipment and operating equipment, 40 CFR 270.21(b)(1) and 264.301(a)(1)(ii).
6. Describe how the landfill is to be covered or otherwise managed to control wind dispersal of particulate matter, 40CFR270.21(b)(5) and 264.301(f).
7. The application requests a waiver to Subpart F groundwater monitoring requirements as provided by 40CFR270.14(c) and 264.90(b). The waiver specifically requests a waiver to artesian aquifer monitoring based on 264.90(b)(4). However, the artesian aquifer does not appear to be the uppermost aquifer, although there may be a hydraulic interconnection between the artesian and surficial sand aquifers. The uppermost aquifer is defined in 260.10 as "the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary." Based on this definition the surficial sand aquifer is the uppermost aquifer. Additionally, the degree of interconnection between the two aquifers must be demonstrated, plus the identification and degree of any vertical gradient in the clay stratum beneath cell bottom.

Therefore, the application must contain information specific to the surficial sand aquifer as required by 264.90(b)(4) or 264.91, 264.92, 264.93, 264.94, 264.95, 264.96, 264.97, 270.14(c) and either 264.98, 264.99 or 264.100.

8. The closure plan in Attachment 23 states that it is for Cell II only. Should this also include Cell I?





9. Provide the results of calculations defining the minimum strength requirement for the liners considering internal and external pressure gradients; stresses resulting from settlement, compression or uplift; climatic conditions (freeze-thaw stress); installation stresses; and operating stresses, 40 CFR 270.21(b)(1) and 264.301(a).
10. Provide data showing that the liner exceeds the calculated minimum strength requirement, 40CFR270.21(b)(1) and 264.301(a).
11. Provide the results of liner/waste compatibility testing demonstrating that liner strength and performance are still adequate after exposure to waste leachates. Both primary and secondary leachates should be used in this testing, 40CFR270.21(b)(1) and 264.301(a).
12. Describe the procedures for installing the liner(s), 40CFR270.21(b)(1) and 264.301(a).
13. Describe the techniques to be utilized to bond membrane liner seams and the strength and compatibility of the seams, 40CFR270.21(b)(1) and 264.301(a).
14. Describe the inspection, monitoring, sampling and testing methods (and frequencies) to be employed during liner installation to assure that the liner system as installed meets the design requirements, 40 CFR 270.21(b)(1) and 264.303(a).
15. Demonstrate that the liner will be installed to cover all surrounding earth likely to be in contact with the waste or leachate, 40CFR270.21(b)(1) and 264.301(a)(1)(iii).
16. Demonstrate that liner will not be exposed to wind or sunlight or, if exposure is to be permitted, that such exposure will not result in unacceptable liner degradation, 40CFR270.21(b)(1) and 264.301(a)(1)(i).
17. Demonstrate that sufficient bedding will be provided above and below the liner to prevent rupture during installation and operation, 40CFR270.21(b)(1) and 264.301(a)(1)(i).
18. Specify if any controls are used for wind dispersion of K061 waste to comply with 40CFR 264.303(b)(3).
19. Each cell must have it's own replacement pumps in case of mechanical breakdown for leachate removal to comply with 40CFR270.14(b)(8)(iv).
20. Provide a statement that training will be completed by facility personnel within six months of hiring or assignment to the facility to comply with 40CFR264.16(b)
21. Provide a statement that training records will be retained until closure for current personnel and for 3 years after leaving for former personnel to comply with 40CFR264.16(e).



JUL 30 1984

5HW-13

Mr. Alan J. Howard  
Chief, Technical Services Section  
Hazardous Waste Division  
Michigan Department of Natural  
Resources  
P. O. Box 30028  
Lansing, Michigan 48909

Re: Ford Motor Company  
Allen Park Clay Mine  
MID980568711

Dear Mr. Howard:

Enclosed are two copies of the Part B from the subject facility.

Per the FY 84 Cooperative Arrangement, please conduct a review of this application for completeness by September 4, 1984.

My staff contact for this application is Joseph M. Boyle (312) 886-7457.

Sincerely,

ORIGINAL SIGNED BY  
WILLIAM H. MINER  
William H. Miner, Chief  
Technical, Permits and Compliance Section

Enclosures

bcc: J. Traub, GCMU

5HW-13:JBOYLE:ssmith:7/25/84

228-3

INITIALS	ap 7-27-84	TYPYST JMB	AUTHOR JMB	STU #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF	TPS CHIEF	WMB CHIEF	WMD DIRECTOR
DATE	7-25-84		7/27/84			7/30/84	7/30/84		



Ford Motor Company

3001 Miller Road  
Dearborn, Michigan 48121

July 10, 1984

RCRA Activities  
Part B Permit Application  
U.S. EPA Region V  
P. O. Box A 3587  
Chicago, IL 60690 - 3587

Attention: 5HW-13

Subject: Ford Allen Park Clay Mine  
Part B Permit Application  
MID 980568711

RECEIVED  
JUL 19 1984

WMD-RAIU  
EPA, REGION V

Pursuant to your letter of January 16, 1984, Ford Motor Company Allen Park Clay Mine herewith submits its "Part B" application in quadruplicate for a hazardous waste management facility permit under Section 3005 of the Resource Conservation and Recovery Act of 1976.

This application package includes both "Part A" (revised) fulfilling the requirements of 40 CFR 270.13, and "Part B" fulfilling the requirements of 40 CFR 270.14 and 270.21.

A revised "Part A" is submitted to make a complete single application document. The revision reflects the reduction in process design capacity and the incorporation of four additional waste types into the facility's waste management capability. This submittal is also consistent with direction received from Mr. Joe Boyle of EPA Region V at a meeting held in your offices on June 5, 1984 and subsequent telephone conversations.

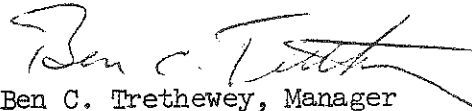
The "Guidance for Permit Application Preparation" document was utilized in this submittal. We believe that this application is complete in that all of the requirements of 40 CFR 264 and 270 are addressed in detail. The only remaining technical issue is the data which characterizes the proposed additional waste types. This information will be provided to complete Section C when the wastes become available.

COPY

RCRA Activities  
Page 2

Should you have any questions concerning the Ford Allen Park Clay Mine  
"Part B" application, please contact me at (313) 594-2242.

Yours very truly,



Ben C. Trethewey, Manager  
Mining Properties Department

Attachments

cc: Mr. Alan J. Howard, MDNR

# RECORD OF COMMUNICATION

☐ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☒ CONFERENCE  
☐ OTHER (SPECIFY)

(Record of item checked above)

TO: FILE:  
- RD MOTOR CO. ALLEN PARK CLAY MINE  
MID 980 568 711

FROM:  
J. BOYLE  
PERMIT CONTACT

DATE  
JUNE 5, 1984  
TIME  
9:00 - 12:50

## SUBJECT

Part B Pre-application conference

## SUMMARY OF COMMUNICATION

Mr. Jerry: Amber and Mr. David Miller met with me today to discuss the Part B application which is due July 15, 1984. The land is owned by Ford Motor Co., the facility is operated by Rouge Steel Co., and managed by Wayne Disposal Inc. Ford is contemplating adding F006. I noted that, unless F006 is addressed during the current application, a permit modification would be necessary before the waste could be disposed.

I described how the waste analysis plan should address specific parameters, rationales, and frequencies. I suggested which parts of the application are likely to be included in the permit as attachments, and how drawings and oversized papers should be reduced for copying purposes.

I pointed out the implications of "existing portion". Active cell I has an existing portion which is currently defined by where hazardous waste has been placed and where leachate has collected. Cell II is only an excavation now, and is unlikely to be an "existing portion". Ford does not currently anticipate using a synthetic liner. It is exploring the possibility of the excavation base and sidewall (saturated clay) meeting the 264.301(a) requirement. I responded that the Agency is unlikely to accept such a conclusion. A liner is construed to be an "engineered" device, not just an excavation into clay. Ford may pursue the 264.301(b) waiver, but would like an indication from the Agency on how, procedurally, the Regional Adminis-

## CONCLUSIONS, ACTION TAKEN OR REQUIRED

trator will convey a finding that an exemption is not warranted. If that occurs in a permit denial (with termination of interim status) Ford is unlikely to pursue it. It would like an opportunity to then apply per 301(a). In responding to Ford's claims of upward flow of groundwater in the clay layer, I noted that no data to date have established the head distribution within the clay, even the 100% saturation has been indicated. We discussed conceptual designs for cover systems, either separately for the hazardous waste cells, or in conjunction with the solid waste areas. Management of leachate after withdrawal from the leachate collection system, in tank may qualify for wastewater treatment exemption.

## INFORMATION COPIES

W. Mune, A. Howard (MDNR)



JAN 16 1984

5HW-13

B. C. Tretheway, Manager  
Ford Motor Co. - Allen Park Clay Mine  
3001 Miller Road - Room 2042  
Dearborn, Michigan 48121

Re: MID980568711

Dear Mr. Tretheway:

By now you should have received an acknowledgement of our receipt of the Part A permit application material for the above-referenced hazardous waste facility under the Resource Conservation and Recovery Act as amended (RCRA) permit program. You should also have been apprised of your condition relative to interim status.

Accordingly, this letter constitutes the next step in the formal process leading toward issuance or denial of an RCRA permit. Under the authority of 40 CFR 270.10 this is a formal request for submittal of Part B of the permit application for the above-referenced facility.

Enclosed is a copy of 40 CFR 270.14-270.29 which lists the items that constitutes a Part B for your facility. Your Part B application must be submitted in quadruplicate and postmarked no later than July 15, 1984. Please uniquely number each page of the application including all attachments (maps, specifications, etc.). A certification statement identical to one stated in 40 CFR 270.11(d) must accompany the application and all additional submittals. Send your application to the following address:

RCRA ACTIVITIES  
Part B Permit Application  
U.S. EPA, Region V  
P.O. Box A3587  
Chicago, Illinois 60690-3587

We are committed to conducting the RCRA permit process as efficiently as possible. Consequently, I suggest you contact Mr. Joseph Boyle of my staff at (312) 886-7457 as you begin preparing your application. Mr. Boyle will be available to discuss specific needs of your application or to meet with you in Chicago. These efforts are intended to generate complete applications without requiring any information beyond that which is necessary to make RCRA permit decisions.

Failure to furnish the completed Part B permit application by the above date and to provide in full all required information is grounds for termination of interim status under CFR 270.10.

Information you submit in the Part B permit application can be disclosed to the public according to the Freedom of Information Act and U.S. Environmental Protection Agency (U.S. EPA) Freedom of Information regulations. If you wish however, you may assert a claim of business confidentiality by printing the word "Confidential" on each page of the application which you believe contains confidential business information. U.S. EPA will review business confidentiality claims under regulations at 40 CFR Part 2 and will later request substantiation of any claims. Please review these rules carefully before making a claim.

If you claim parts of the application as confidential please provide us with a public information copy of the application. The public information copy must be identical to the full application with the exclusion of the confidential information.

We will coordinate review of the application with the Michigan Department of Natural Resources. It is possible that during the processing of your application the State hazardous waste program may become authorized to issue RCRA permits for your type of facility. In that case direct Federal processing will cease and the State in lieu of U.S. EPA will make the final determination on your application.

We look forward to receiving your Part B permit application.

Sincerely yours,

ORIGINAL SIGNED BY  
WILLIAM H. MINER

Karl J. Klepitsch, Jr., Chief  
Waste Management Branch

Enclosure 40 CFR 270.14-270.29  
Guidance for Permit Application Preparation

cc: Alan J. Howard  
Michigan Department of Natural Resources

5HW-13/WMB/J. BOYLE/D. THORPE/12/30/83

	TYPIST	AUTHOR	STU #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF	IPS CHIEF	WMB CHIEF	WMD DIRECTOR
INITIALS	108T	JMB			WEM	WMB	WMB	
DATE	12/30/83	1/12/84			1/14/84	1/12/84	1/12/84	

*Com 1-12-84*



## FACT SHEET

### Proposed Relicensing

Ford Motor Company  
Allen Park Clay Mine  
Hazardous Waste Landfill

MID980568711

Michigan Department of Natural Resources  
U.S. Environmental Protection Agency

### BASIS FOR PROPOSED LICENSE ISSUANCE

The Michigan Department of Natural Resources (MDNR) proposes to reissue an operating license to Ford Motor Company for the continued operation of their Allen Park Clay Mine hazardous waste landfill. Simultaneously, the U.S. Environmental Protection Agency proposes to issue a permit to the same facility authorizing continued operation. Section I of this Fact Sheet describes the state and federal programs to regulate hazardous waste and to permit hazardous waste treatment, storage and disposal facilities.

The provisions of R 299.9518 of the Michigan Administrative Code requires the MDNR to deny a license to a hazardous waste treatment, storage or disposal facility if the facility has not been constructed in accordance with approved plans, applicable rules or the conditions of the approved construction permit; if the construction or operation of the facility presents a hazard to public health or the environment; or if the applicant has not submitted sufficiently detailed or accurate information to enable the Director to make a reasonable judgment as to whether the license should be granted. Based on the review of the Ford Motor Company Allen Park Clay Mine application and numerous site inspections and audits, Department staff have proposed the license be issued based on the following conditions:

1. Cell 1 has been closed in accordance with approved plans, applicable rules and operating license issued to the facility. A total of 4 construction audits by MDNR staff have verified this construction. Section II of this fact sheet describes the facility site and design, it's prior licensing and MDNR audit activities.
2. The facility does not at this time present a hazard to human health or the environment. This conclusion is based on the following:
  - a. No evidence of leakage from any landfill cell.
  - b. Environmental monitoring of air, surface water and groundwater conducted by the company and audited by MDNR.
  - c. Compliance inspections conducted by MDNR staff.

3. The application by Ford Motor Company is sufficiently detailed to allow issuance of a license. Portions of the license application have been attached to the draft as enforceable documents.

The Allen Park Clay Mine landfill has been found to be out of compliance with certain provisions of Act 64 during its operating life (see Compliance Summary, Attachment 1). However, Ford Motor Company has been responsive to all warning letters and was in compliance when last fully inspected on September 9, 1987.

Though MDNR and EPA believe that they have done a thorough job of reviewing the company's application for state and federal permits, both agencies seek public input on the issuance of these licenses. Section 4 of this fact sheet describes the procedures for obtaining public input and reaching a final decision on permit and license issuance.

## I. INTRODUCTION

Michigan's Hazardous Waste Management Act, 1979, P.A. 64 (Act 64), was passed by the Michigan Legislature to regulate the management of hazardous waste from generation to disposal. Likewise, Subtitle C of the Solid Waste Disposal Act, as amended, 42 USC 6901, *et seq.* (commonly known as the Resource Conservation and Recovery Act of 1976 (RCRA)), was passed by the U.S. Congress to regulate hazardous waste nationwide. In addition, RCRA was amended substantially by the Hazardous and Solid Waste Amendments of 1984 (HSWA) which requires that land disposal facilities comply with more stringent technological standards and requires any facility seeking a permit to initiate corrective actions for any environmental contamination at the facility originating from a waste management unit not otherwise regulated under RCRA.

Both RCRA and Act 64 contain a permit system governing the treatment, storage and/or disposal of hazardous waste. However, RCRA allows the State to become "authorized" to issue a state hazardous waste permit in lieu of a federal permit. Effective December 27, 1985, the State of Michigan amended its rules to be equivalent to those under RCRA and applied for authorization from EPA. Michigan became authorized for conducting all portions of the RCRA program except those under HSWA in October, 1986.

Because Michigan is not authorized to issue permits which address requirements under HSWA, the Michigan Department of Natural Resources and the U.S. EPA will continue to issue separate permits to hazardous waste facilities. However, the EPA permit will be simplified, and the two agencies will, to the extent possible, coordinate the review and issuance of the permits.

## II. DESCRIPTION OF FACILITY

### A. Site Description and Prior Licensing

The hazardous waste landfill portion of Ford Motor Company Allen Park Clay Mine consists of 17 acres bounded by Oakwood Boulevard to the northeast and I-94 to the southeast and solid waste landfill in

other directions (see Figure 1). The 17 acres of hazardous waste landfill is divided into two 8 acre cells numbers I and II. The remainder of the site is devoted to landfilling of non-hazardous solid waste regulated under Michigan's Solid Waste Management Act, 1978 PA 641.

An operating license for this site was issued to the company by MDNR on July 7, 1982. This license expired on July 7, 1986; however, the company filed a timely reapplication and was, therefore, allowed to continue to operate under the conditions of the previous license as provided for in the Michigan Administrative Procedures Act, 1969, P.A. 306.

The Ford Motor Company Allen Park Clay Mine landfill has been considered an "existing hazardous waste management facility" under RCRA, because the landfill was in existence prior to November 19, 1980. For this reason, the landfill has, since that time, not been required to have an RCRA permit, but rather, has been required to comply with the interim standards for landfills contained in 40 CFR Part 265. An application for a RCRA "Part B" permit was requested by EPA on February 7, 1983. The company's application for this permit has been submitted and is complete. However, reissuance of an Act 64 permit and issuance by EPA of a permit under HSWA at this time constitutes the equivalent of a RCRA permit.

#### B. Facility Construction and Design

Based on construction certifications and construction audits by MDNR staff, landfill construction to date has been done in accordance with approved plans, Act 64 and the Act 64 rules effective at the time, and the operating license issued to the facility.

Cell I was constructed under the Act 64 license and was designed to the Act 64 standards effective at the time. Figure 2 shows a cross-section of a typical landfill trench designed for these standards.

The provisions of HSWA, effective November 8, 1984, required that new landfill units and portions of existing units that had not received waste to be designed to include a double liner system with, at a minimum, a synthetic top liner and bottom liner consisting of no less than 3 feet of compacted clay with a leak detection system between the two. Existing facilities that did not install double liner systems by May 9, 1985, were required to close. As a result Cell I of this facility ceased receiving hazardous waste as of that date and has undergone closure. Cell II is designed to these standards. A typical cross section of such a design is shown in Figure 3.

Top  
Frac  
0000  
3' 8"  
clay



### III. ENVIRONMENTAL IMPACT

#### A. Wastes Received

The Act 64 operating license issued to Ford Motor Company authorized disposal of two waste types at the landfill, provided these wastes were not ignitable, reactive, liquid or incompatible with the liner or leachate collection system.

The proposed license allows the company to accept a broader variety of waste types than the previous license, provided that waste accepted meets the criteria identified above and are not wastes which are banned from landfilling by the land disposal ban initiated on hazardous waste by HSWA. Specific conditions have been added to the draft license to address these prohibitions.

#### B. Environmental Monitoring

Environmental monitoring of the site has not indicated any threat to human health or the environment. Environmental monitoring to date has included groundwater monitoring of both indicator and leachate specific parameters, surface water monitoring and air monitoring. MDNR has audited the company's groundwater monitoring program a total of two times since 1982 and has also audited the leachate monitoring program (1 time), and surface water monitoring program (4 times).

The results of groundwater monitoring currently shows no correlation between the concentration of parameters in the monitoring wells and the concentration of these parameters in the leachate. The requirement for chemical analysis of groundwater samples is waived in the proposed license. This is based on the company's demonstration that there is no potential for migration of hazardous waste or constituents to the uppermost aquifer during the active life and post-closure care period due to the native soil and artesian conditions at this site. The proposed license will require potentiometric monitoring of the uppermost aquifer to verify that the artesian conditions continue to exist.

Surface water monitoring has been conducted at the surface drains and the sediment basin. To date, this monitoring has been generally inconclusive. To better evaluate the potential impact of the landfill on surface waters, future surface water monitoring under the proposed license will include specific hazardous constituent monitoring and will include use of a statistical test to determine unacceptable increases in indicator parameters.

Like surface water monitoring, ambient air monitoring of particulate matter at the site has, to date, been inconclusive. The daily maximum for future sampling will include total suspended particulates, metals (cadmium, chromium, lead, copper, mercury, arsenic, selenium, silver, barium and zinc) and, extractable organic compounds.

#### IV. PUBLIC PARTICIPATION

##### A. Public Comment Procedures

The purpose of public participation is to insure that the interested public has knowledge of MDNR's and EPA's proposed actions and an opportunity to comment on those actions. In addition, it insures that the MDNR and U.S. EPA have an opportunity to benefit from any information the public might have relevant to the proposed action. Comments may be submitted in writing to the addressee listed in subsection C by September 3, 1988, or they may be presented at a public hearing to be conducted on the draft permits. The public comment and public hearing procedures which will be followed are found in state regulations at R 299.9514 and R 299.9515 of the Michigan Administrative Code and in Federal Regulations at 40 CFR 124.11 and 124.12.

A public hearing on the draft MDNR operating license and draft EPA permit will be held at 7:30 p.m. on August 25, 1988, at the Allen Park City Hall, Allen Park, Michigan. All persons attending the hearing are requested to register. At that time the person is to indicate on the registration card if he or she intends to present a statement. Registration will begin 30 minutes prior to each hearing session.

After the public hearing and the close of the public comment period, MDNR and U.S. EPA will decide whether to issue the final permits. Written comments submitted during the public comment period and statements provided at the public hearing will be considered by the Director of MDNR and the Regional Administrator of EPA in the formulation of their final decisions. Responses to written comments and statements will be included in the record supporting the final decision of the agencies. The final permit decisions by MDNR and U.S. EPA will be communicated to the applicant, each person who submitted a written comment during the public comment period, and persons providing statements at the public hearing.

##### B. Locations of Available Information

The administrative record for the EPA permit is on file in the Solid Waste Branch, U.S. EPA Region V, 13th Floor, 230 South Dearborn Street, Chicago, Illinois, 60604 and may be inspected and copied at any time between 8:30 a.m. and 4:00 p.m. Monday through Friday, except for legal holidays. The administrative record for the MDNR operating license is on file at the Lansing office of the MDNR, on the first floor of the South Ottawa Building, Lansing, Michigan, 48909. In addition, copies of the draft permit and fact sheet of the proposed facility are available for review at Office of the City Administrator, City of Allen Park, 16850 Southfield Road, Allen Park, Michigan.

C. Contact Person

Written comments on the draft permit must be received by the addressees below, no later than September 3, 1988. All comments should include the name and address of the writer and a concise statement of the exact basis for any comment, and the supporting relevant facts upon which the comment is based. In addition, all further requests for information, including requests for copies of the draft permits and fact sheets should be made to these addressees:

Act 64 Operating License Comments

Michigan Department of Natural Resources  
Waste Management Division  
P.O. Box 30038  
Ottawa Street Building - South Tower  
Lansing, Michigan 48909  
Attention: Pete Quackenbush

RCRA (HSWA) Permit Comments

U.S. Environmental Protection Agency  
5HS-13  
230 South Dearborn  
Chicago, Illinois 60604  
Attention: David Petrovski

NOTES:

1. General Layout Of Site Facilities From Drawing Supplied By Wayne Disposal, Inc., Entitled "Allen Park Clay Mine" Dated 9-12-79, Rev. S-1-B1, Sheet No. C-2 of Drawing No. 792 - 23.6.
2. Location And Elevation of Bench Marks Obtained From Charles E. Faines Company

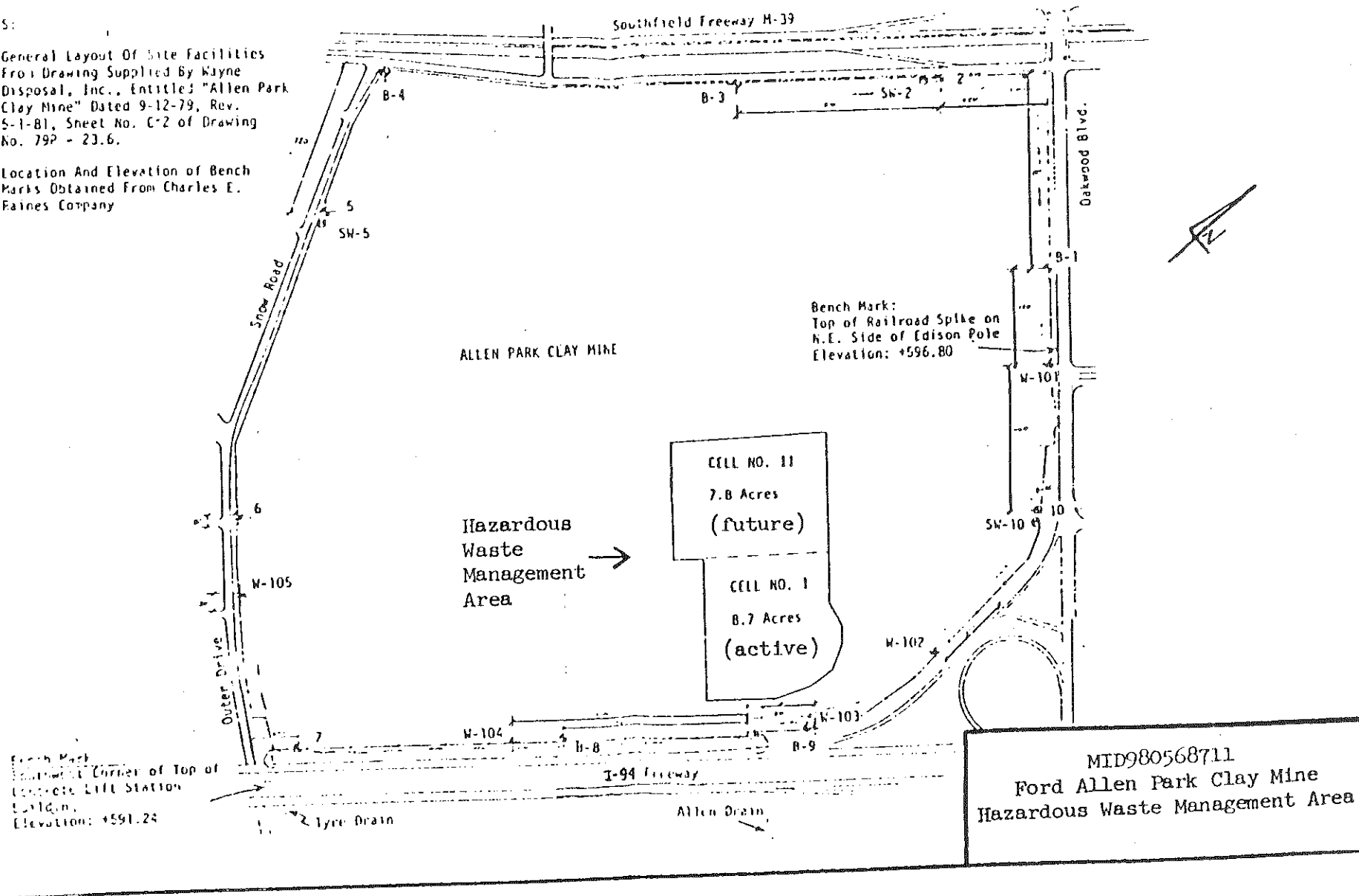
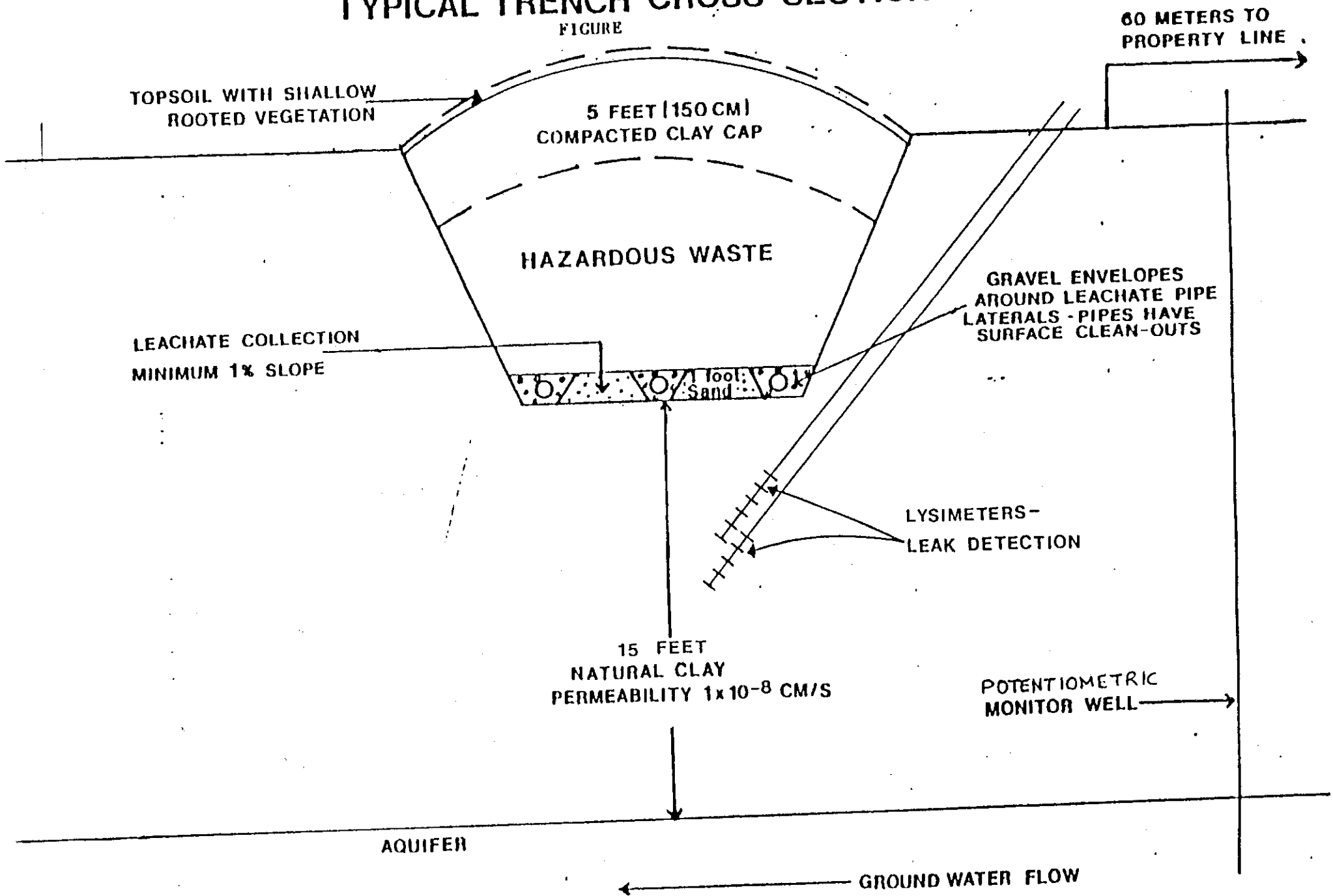


Figure 1

# HAZARDOUS WASTE LANDFILL TYPICAL TRENCH CROSS SECTION

FIGURE



NOTE: DRAWING IS N TO SCALE



# HAZARDOUS WASTE LANDFILL TYPICAL TRENCH CROSS SECTION

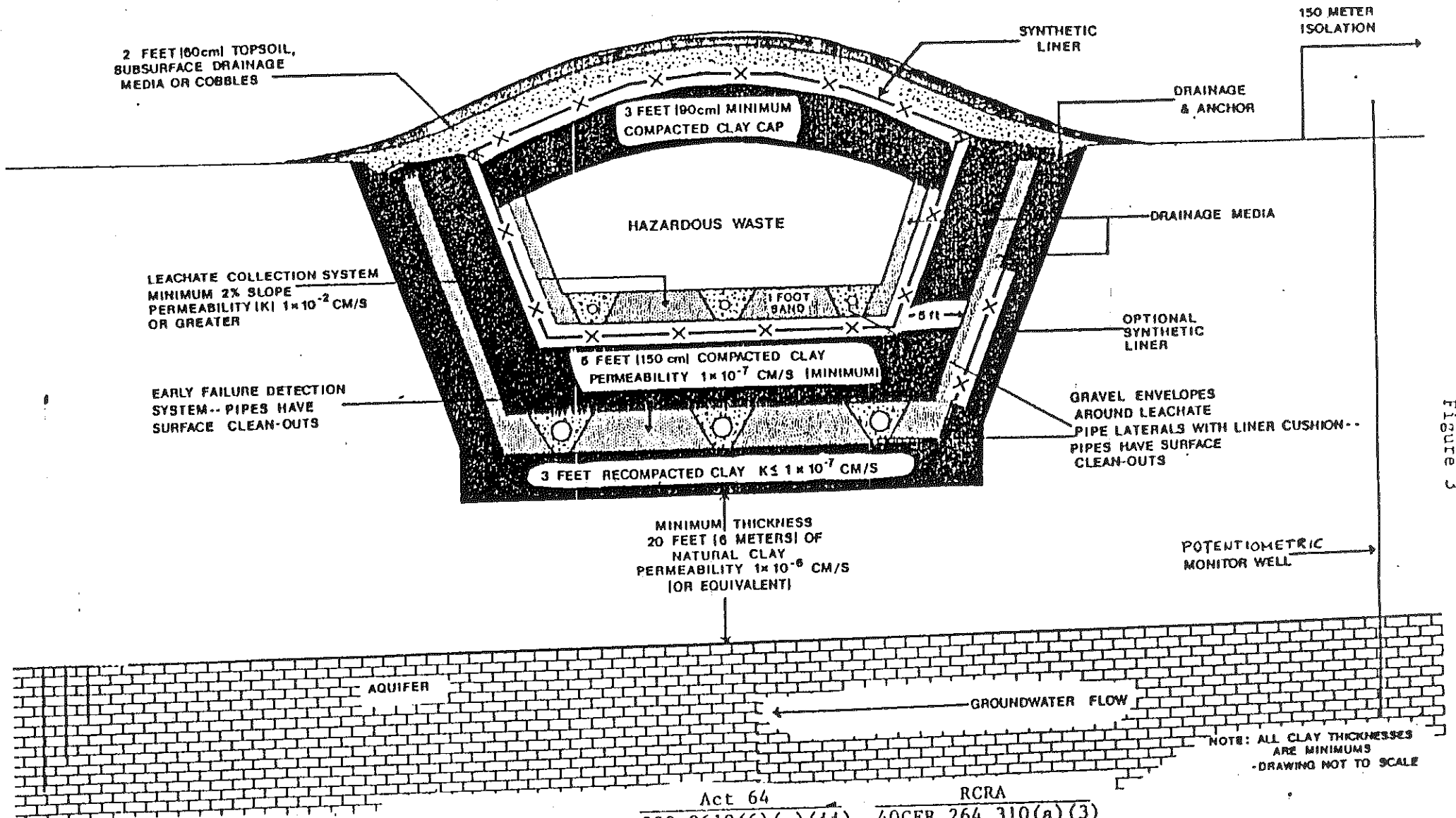


Figure 3

	Act 64	RCRA
Topsoil, drainage	299.9619(6)(a)(11)	40CFR 264.310(a)(3)
Synthetic cap	299.9619(6)	40CFR 264.310(a)(5)
Clay cap min. 3'	299.9619(6)(a)(1)	
Leachate collection	299.9619(4)	40CFR 264.301
Synthetic liner	299.9619(1)	40CFR 264.301(c)
Clay liner 5'	299.9619(2)	
Leak detection	299.9619(3)	
Clay or synthetic	299.9619(1)	40CFR 264.301(c)

Attachment #1

FORD MOTOR COMPANY, ALLEN PARK CLAY MINE LANDFILL

COMPLIANCE HISTORY

The following is a chronology of the compliance history for FMC, Allen Park Clay Mine Landfill:

August 12, 1982	RCRA inspection conducted by MDNR staff.
September 2, 1982	A letter of warning was issued by MDNR staff regarding the August 12, 1982 inspection. The following violations were found: <ul style="list-style-type: none"><li>-Waste analysis plan was incomplete.</li><li>-Inspection log did not contain the time at which the inspections were conducted.</li><li>-Inadequate personnel training.</li><li>-Groundwater monitoring data not submitted to EPA.</li><li>-Post-closure plan did not contain the name, address and phone number of facility contact.</li></ul>
September 17, 1982	FMC responded to the September 2, 1982 letter of warning.
October 22, 1982	Facility operating permit under Act 64 issued. Expires in four years.
December 17, 1982	FMC filed a petition for a contested case hearing relating to the issued permit.
April 12, 1983	Act 64 inspection conducted by MDNR staff. The following deficiencies were noted: <ul style="list-style-type: none"><li>-An individual had not received the required training.</li><li>-Inspections not accurately recorded.</li><li>-April receipt log missing.</li><li>-Warning signs not displayed.</li><li>-Run-on not properly managed.</li></ul>

- Specific conditions 10 and 15 were not being met
- No vehicle wheel wash constructed.
- Groundwater monitoring IAW specific conditions 16A, C, E & H was not met.
- Surface water and sediment monitoring was not accomplished as required in specific conditions 17B, C & D.
- Air monitoring as required in specific condition 19 was not accomplished.
- Leachate monitoring as required in specific conditions 18A was not accomplished.

June 1, 1983

Act 64 and RCRA inspection conducted by MDNR staff.

June 14, 1983

A letter of warning was issued by MDNR staff relating to the RCRA inspection on June 1, 1983. The following deficiencies were found:

- Danger signs were not properly displayed.
- The time was not included on the inspection report.
- Proper run-on and run-off management was not performed.

June 22, 1983

Letter of warning was issued by MDNR staff relating to the Act 64 inspection on June 1, 1983. The following deficiencies were found:

- The leachate collection system was not installed as required in specific condition item 10A.
- The vehicle wheel wash was not installed as required in specific condition item 12C.
- The vacuum road sweeper was not being used as required in specific condition item 12B.
- Groundwater and leachate monitoring had not been performed and reported as required in specific conditions item 16 and 18 respectively.

June 24, 1983

FMC responded to the June 14, 1983 letter of warning.

June 30, 1983

MDNR staff issued a return to compliance letter relating to the June 1, 1983 inspection.

July 6, 1983	FMC responded to the June 22, 1983 letter of warning.
July 18, 1983	MDNR staff issued a return to compliance letter.
September 22, 1983	Act 64 inspection conducted by MDNR staff.
September 27, 1983	Letter of warning was issued by MDNR staff relating to the September 22, 1983 Act 64 inspection. Daily cover not applied as required was the deficiency noted.
October 5, 1983	FMC responded to the September 27, 1983 letter of warning.
October 11, 1983	MDNR staff issued a return to compliance letter relating to the September 22, 1983 inspection.
November 17, 1983	Act 64 inspection conducted by MDNR staff.
November 23, 1983	Letter of warning was issued by MDNR staff relating to the November 17, 1983 Act 64 inspection. The following deficiencies were found:
	-Daily cover not applied as required.
	-Inspection report not accurately completed.
	-Notification plan submittal and approval for sewer construction was not properly coordinated through the MDNR as required.
December 6, 1983	FMC responded to the November 23, 1983 letter of warning.
January 31, 1984	MDNR staff issued a return to compliance letter regarding most deficiencies identified in the November 17, 1983 inspection.
February 24, 1984	FMC responded to a pending deficiency noted in the November 23, 1983 letter of warning.
March 23, 1984	Act 64 inspection conducted by MDNR staff.
March 28, 1984	Letter was sent by MDNR staff relating to the March 23, 1984 Act 64 inspection. No deficiencies noted.
April 11, 1984	Letter of warning was issued by MDNR staff. The letter related to an April 3, 1984 site visit and an observation by MDNR staff of the company improperly handling leachate at the facility.

April 12, 1984	Letter of warning was issued by MDNR staff relating to a Technical Services Section, HWD review and non compliance with specific conditions 5.A.4(a), 5.A.4(6) and 5.A.4(c).
April 25, 1984	FMC responded to the April 11, 1984 letter of warning.
May 10, 1984	FMC responded to the April 12, 1984 letter of warning.
June 12, 1984	RCRA and Act 64 inspection conducted by MDNR staff.
June 15, 1984	Letter of warning issued by MDNR staff relating to a Technical Services Section, HWD review of the FMC response letter dated May 10, 1984.
June 21, 1984	Letter of warning was issued by MDNR staff relating to the June 12, 1984 Act 64 inspections. The following deficiencies were found:  -Lack of required warning signs.  -Insufficient daily cover.  -Inadequate grading to prevent ponding.
June 21, 1984	Letter of warning was issued by MDNR staff relating to the June 12, 1984 RCRA inspection. Lack of required warning signs was the deficiency found.
June 27, 1984	Two FMC responses to the June 21, 1984 letter of warnings were received.
July 2, 1984	FMC responded to the June 15, 1984 letter of warning.
July 24, 1984	MDNR staff issued two return to compliance letters relating to the June 12, 1984 inspections.  Notice of Deficiency issued by USEPA regarding an incomplete Part B application.
September 25, 1984	Act 64 inspection conducted by MDNR staff.
September 27, 1984	Citizen complaint to Wayne County Air Pollution regarding dust problems.
October 4, 1984	Letter was sent by MDNR staff relating to the September 25, 1984 inspection. No deficiencies noted.

November 14, 1984	Letter from Al Howard, MDNR to Jerome Amber relating to resolving the contested issues on the operating license.
November 20, 1984	Act 64 inspection conducted by MDNR staff.
November 21, 1984	Letter of warning was issued by MDNR staff relating to the November 20, 1984 inspection. The following deficiencies were found:  <ul style="list-style-type: none"> <li>-Annual training review was not documented for on individual.</li> <li>-Annual contingency plan review was not completed.</li> <li>-Insufficient cover.</li> </ul>
November 26, 1984	FMC responded to the November 20, 1984 letter of warning.
December 17, 1984	MDNR staff issued a return to compliance letter relating to the November 20, 1984 inspection.
March 13, 1985	Act 64 inspection conducted by MDNR staff.
March 18, 1985	Letter of warning was issued by MDNR staff relating to the March 13, 1985 inspection. The following issues were found:  <ul style="list-style-type: none"> <li>-Leachate plan revisions requested.</li> <li>-Wheel wash plans requested.</li> <li>-Monitoring as required in Section 17 and 18 requested.</li> <li>-Verification/certification info to be incorporated in operating log.</li> <li>-Maintenance of 6 inch head limit for leachate.</li> </ul>
April 1, 1985	FMC responded to the March 18, 1985 letter of warning.
April 23, 1985	MDNR staff issued a return to compliance letter relating to the March 13, 1985 inspection.
April 23, 1985	USEPA sent FMC notice of the Corrective Action Requirements and FMC's need to evaluate prior releases of hazardous waste.
May 5, 1985	Act 64 and RCRA inspection conducted by MDNR staff.

May 22, 1985	Two letters were sent by MDNR staff relating to the May 21, 1985 inspections. No deficiencies noted.
September 4, 1985	Act 64 inspection conducted by MDNR staff.
September 9, 1985	Letter of warning was issued by MDNR staff relating to the September 4, 1985 inspection. The following issues were found:  -Leachate level in excess of six inches.  -Run-on not being prevented  -Proper decontamination needed on equipment.
September 23, 1985	FMC responded to the September 9, 1985 letter of warning.
October 10, 1985	MDNR staff issued a return to compliance letter relating to the September 9, 1985 inspection.
December 16, 1985	RCRA inspection conducted by MDNR staff.
December 18, 1985	Letter of warning was issued by MDNR staff relating to the December 16, 1985 inspection. The following issues were found:  -Fence repair needed.  -Missing warning signs.  -Inadequate run-on control.
January 7, 1986	FMC responded to the December 18, 1985 letter of warning.
January 15, 1986	MDNR staff issued a return to compliance letter relating to the December 18, 1985 inspection.
March 25, 1986	Act 64 inspection conducted by MDNR staff.
March 27, 1986	Letter of warning was issued by MDNR staff relating to the March 25, 1986 inspection. The following deficiencies were found:  -Warning sign missing.  -Copy of biennial report requested.  -Annual training update not performed for an individual.  -Leachate level was too high.



April 16, 1986	FMC responded to the March 27, 1986 letter of warning.
April 28, 1986	MDNR staff issued a return to compliance letter relating to the December 18, 1985 inspection.
June 13, 1986	Act 64 inspection conducted by MDNR staff.
June 17, 1986	Letter of warning was issued by MDNR staff relating to the June 13, 1986 inspection. The following issues were found:  <ul style="list-style-type: none"> <li>-Proper completion of the inspection reports.</li> <li>-Elimination of a non-hazardous leachate seep.</li> </ul>
June 19, 1986	Facility Management Plan prepared by MDNR staff and submitted to USEPA.
June 20, 1986	FMC responded to the June 17, 1986 letter of warning.
September 10, 1986	Act 64 inspection conducted by MDNR staff.
September 16, 1986	Letter of warning was issued by MDNR staff relating to the September 10, 1986 inspection. The following deficiencies were found:  <ul style="list-style-type: none"> <li>-Missing warning sign.</li> <li>-Contingency plan not reviewed annually.</li> <li>-Not keeping monitoring data current in the operating log.</li> </ul>
September 23, 1986	FMC responded to the September 16, 1986 letter of warning.
December 8, 1986	Act 64 inspection conducted by MDNR staff relating to the December 8, 1986 inspection. The issue identified was that the inspection reports were not completed in their entirety.
January 9, 1987	FMC responded to the December 16, 1986 letter of warning.
March 30, 1987	Act 64 inspection conducted by MDNR staff.
April 1, 1987	Letter of warning was issued by MDNR staff relating to the March 30, 1987 inspection. The following issues were found:  <ul style="list-style-type: none"> <li>-Modifying the inspection report as needed.</li> </ul>

-Annual training update for an employee needed.

-Soil sample results requested.

April 14, 1987	FMC responded to the April 1, 1987 letter of warning.
May 21, 1987	MDNR staff issued a second letter of warning relating to the April 14, 1987 FMC response letter.
June 5, 1987	FMC responded to the May 21, 1987 letter of warning.
June 10, 1987	Act 64 inspection conducted by MDNR staff.
June 30, 1987	Letter of warning was issued by MDNR staff relating to the June 10, 1987 inspection. The following issues/violations were found:
	-Excess leachate level.
	-Leak detection system for the underground tank was not operational.
	-Liquids found in secondary containment system.
	-Inspection report needs to document secondary containment inspections.
July 16, 1987	FMC responded to the June 30, 1987 letter of warning.
July 28, 1987	MDNR staff issued a return to compliance letter relating to the June 10, 1987 inspection.
September 9, 1987	Act 64 inspection conducted by MDNR staff.
September 29, 1987	A letter was issued by MDNR staff relating to the September 9, 1987 inspection. No deficiencies were noted.

## PUBLIC NOTICE

Ford Motor Company  
Allen Park Clay Mine  
Allen Park, Michigan

Michigan Department of Natural Resources (MDNR), and the United States Environmental Protection Agency (U.S. EPA) Region V, are hereby giving notice of their intent to issue a joint Michigan Public Act 64 operating license and federal Resource Conservation and Recovery Act (RCRA) permit to Ford Motor Company, Inc. This operating license and permit would allow Ford to continue to operate a hazardous waste landfill at 17005 Oakwood Boulevard, Allen Park, Michigan. Ford is currently operating under their existing Act 64 operating license and "interim status" as provided for in Section 3005 of RCRA. This notice is given in accordance with Section 24 of Act 64, R 299.9511 of the Act 64 administrative rules, Section 7004 of RCRA and Title 40 Section 124.10 of the Code of Federal Regulations. The MDNR and U.S. EPA are inviting public comments on this application and the draft operating license and permit.

The U.S. EPA and MDNR also give notice that further evaluation is necessary to determine if releases of hazardous waste or hazardous constituents to the environment are occurring or have occurred, from any solid waste management units, at the Ford facility at 17005 Oakwood Boulevard, Allen Park, Michigan.

This tentative determination is one of the steps U.S. EPA is undertaking to fulfill its obligation under the recently enacted (November 8, 1984) Hazardous and Solid Waste Amendments of 1984 (HSWA; the Amendments). Section 206 of the Amendments requires that all hazardous waste management permits issued after November 8, 1984, must require corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage, or disposal facility seeking a permit. It further requires that permits issued may contain a schedule of compliance for such corrective action (where such corrective action cannot be completed prior to the issuance of the permit) and assurances of financial responsibility for completing such corrective action and waste minimization and minimum technology.

Ford is currently licensed to accept two types of listed hazardous waste. The facility is restricted from accepting waste which is ignitable, reactive, contains free liquid, or is incompatible with the landfill design. The proposed license allows Ford to accept additional characteristic and listed waste types for landfiling subject to the conditions in the license.

A Public Hearing will be held on August 25, 1988, at the Allen Park City Hall, 16850 Southfield Road, Allen Park, Michigan. The hearing will begin at 7:30 p.m. and will continue until all persons have had the opportunity to present their comments for the record. Speakers should register by 7:00 p.m., limit their oral presentation to five minutes and, if possible, submit two copies of their oral presentation to the MDNR and

U.S. EPA in written form at the hearing. The public comment period on the application, the draft operating license, and RCRA permit begins July 20, 1988, and ends September 3, 1988. Written comments on the application, draft operating license, and permit will be accepted during the public comment period. All comments submitted for consideration by MDNR and U.S. EPA must be postmarked by January 6, 1988. Comments regarding the Act 64 operating license should be sent to Peter Quackenbush, MDNR, Waste Management Division, P.O. Box 30038, Lansing, Michigan 48909. Comments regarding the RCRA permit should be sent to David Petrovski, U.S. EPA Region V, 230 South Dearborn, 5HS-JCK-13, Chicago, Illinois 60604.

Parking, entrances, doorways, corridors, restrooms, and the meeting room are accessible to handicapped persons. Specialized assistance such as the use of a qualified interpreter for the deaf and meeting materials in Braille, large print, or on tape are available if requested by August 16, 1988. Contact Peter Quackenbush at 517-373-2730 to request this assistance.

The Ford Allen Park Clay Mine operating license application, the MDNR/U.S. EPA draft operating license/RCRA permit and Fact Sheet as well as information regarding the MDNR/U.S. EPA assessment of prior releases, are available for inspection at the City of Allen Park, Office of the Administrator, 16850 Southfield Road, Allen Park, Michigan 48107.

These materials and other supporting documents, including all data submitted by the applicant, are also available at the MDNR, Capitol Complex, Ottawa Building, Lansing, Michigan 48933, from 8:00 a.m. to 5:00 p.m. and in the Administrative Record at the U.S. EPA, Region V, Solid Waste Branch, 230 South Dearborn, Chicago, Illinois 60604, from 9:00 a.m. to 4:00 p.m., Monday through Friday. For further information or assistance, please contact Peter Quackenbush at 517-373-2730 regarding the Act 64 operating license or David Petrovski at 312-886-0997 regarding the RCRA permit.

After the close of the public comment period, MDNR and U.S. EPA will evaluate all comments received before issuing a final permit decision. Each person who submitted written comments or requested notice of the decision will receive notice of the final decision. Under R 299.9511 of the Act 64 administrative rules and Title 40 CFR Section 124.17, the MDNR and U.S. EPA will also respond to all significant comment on the operating license and permit, specify which provisions, if any of the draft operating license and permit were changed, and indicate whether additional documents have been included in the Administrative Record.

State of Michigan  
Department of Natural Resources

HAZARDOUS WASTE FACILITY  
OPERATING LICENSE

RECEIVED

OFFICE OF RCRA  
Waste Management Division  
U.S. EPA, REGION V

Name of Licensee: Ford Motor Company

Name of Owner: Ford Motor Company

Name of Operator: Ford Motor Company

Name of Titleholder of Land: Ford Motor Company

Facility Name: Ford Motor Company, Allen Park Clay Mine

Facility Location: 17005 Oakwood Boulevard, Allen Park, Michigan

EPA Identification Number: MID 980 568 711

Effective Date:

Expiration Date:

Authorized Activities

Pursuant to the Hazardous Waste Management Act, 1979 P.A. 64, as amended, and rules promulgated thereunder by the Michigan Department of Natural Resources (MDNR), an operating license is issued to (hereafter called the licensee) to operate a hazardous waste facility located in Allen Park, Michigan, at latitude 42°17'00"N and longitude 83°12'21"W. You are authorized to conduct the following hazardous waste management activities:

<input type="checkbox"/> Storage	<input type="checkbox"/> Treatment	<input checked="" type="checkbox"/> Disposal
<input type="checkbox"/> Container	<input type="checkbox"/> Tank	<input type="checkbox"/> Injection Well
<input type="checkbox"/> Tank	<input type="checkbox"/> Surface Impoundment	<input checked="" type="checkbox"/> Landfill
<input type="checkbox"/> Waste Pile	<input type="checkbox"/> Incinerator	<input type="checkbox"/> Land Application
<input type="checkbox"/> Surface	<input type="checkbox"/> Other	<input type="checkbox"/> Surface
<input type="checkbox"/> Impoundment		<input type="checkbox"/> Impoundment

Applicable Regulations:

The conditions of this license were developed in accordance with the applicable provisions of the September 6, 1985 rules under 1979 PA 64:

<input checked="" type="checkbox"/> Part 2	<input type="checkbox"/> R 299.9614	<input type="checkbox"/> R 299.9623 to R 299.9625
<input type="checkbox"/> Part 3	<input type="checkbox"/> R 299.9615	<input type="checkbox"/> R 299.9626
<input checked="" type="checkbox"/> R 299.9601 to	<input type="checkbox"/> R 299.9616	<input checked="" type="checkbox"/> Part 7
<input type="checkbox"/> R 299.9611	<input type="checkbox"/> R 299.9617	<input type="checkbox"/> Part 8
<input type="checkbox"/> R 299.9612	<input type="checkbox"/> R 299.9618	
<input checked="" type="checkbox"/> R 299.9613	<input checked="" type="checkbox"/> R 299.9619 to	
	<input type="checkbox"/> R 299.9622	



License Approval:

The licensee shall comply with all terms and conditions of this license. This license consists of the conditions contained herein (including those in any attachments) and the applicable regulations contained in R 299.9101 through R 299.11008 as specified in the license. Applicable rules are those which are in effect on the date of issuance of this permit.

This license is based on the information in the operating license application submitted on April 21, 1986 and any subsequent amendments (hereafter referred to as the application). The facility shall be constructed and/or operated as specified in the application. Any inaccuracies found in this information provides grounds for the revocation or modification of this license [see R 299.9519(6)] and enforcement action. The licensee shall inform the Director of any deviation from or changes in the information in the application which would affect the licensee's ability to comply with the applicable rules or license conditions.

This license is effective as of \_\_\_\_\_, and shall remain in effect until \_\_\_\_\_, unless revoked (R 299.9519) or continued in effect as provided by 1969 PA 306, as amended, the Michigan Administrative Procedures Act.

Issued this \_\_\_\_ day of \_\_\_\_\_, 19\_\_.

by

\_\_\_\_\_  
David F. Hales, Director





RCRA PERMIT DOCKET LOG  
FORD ALLEN PARK CLAY MINE  
MID 980 568 711

Item No.	Item Date	Item Description	Item Filed
1	-----	RCRA Permit Docket Log	Section 1
2		Cover Letter for Draft HSWA Permit FR: B. Muno, U.S. EPA TO: D. Painter, Rouge Steel	Section 2
3	7/20/83	Cover Letter for Draft HSWA Permit FR: B. Muno, U.S. EPA TO: T. Page, Ford	Section 5
4	3/24/83	Memo: Reasons for HSWA Permit Conditions FR: C. Witt, U.S. EPA TO: R. Traub, U.S. EPA	Section 2
5		Draft HSWA Permit Conditions w/Attachments <i>see item 37</i>	Section 2
6	7/10/84	MI Act 64/RCRA Permit Application w/Exposure Assessment (revisions thereafter) <i>IN ACT 64 APP. FOLDER 1</i>	<del>Section 3</del> <del>Folder 1</del>
7		Fact Sheet <i>see item 20</i>	Section 6
8		Public Notice <i>see items 21 &amp; 22</i>	Section 6
9	10/29/85	Certification of Ground Water Monitoring and Financial Responsibility FR: P. Sullivan, Rouge Steel TO: U.S. EPA	Section 3
10	5/30/85	Corrective Action Information FR: B. Tretheway, Ford TO: U.S. EPA	Section 3
11	9/11/87	Supplemental Corrective Action Information FR: D. Painter, Rouge Steel TO: C. Witt, U.S. EPA	Section 3
12	4/28/87	NOD FR: P. Quackenbush, MDNR TO: D. Painter, Rouge Steel	Section 4
13	6/10/87	Part B Revisions Cover Letter FR: D. Painter, Rouge Steel TO: P. Quackenbush, MDNR	Section 4
14	-----	Guidance Documents	Section 4 Folder 1
15	5/14/85	Certification of Prior Releases FR: B. Tretheway, Ford TO: U.S. EPA	Section 3
16	8/20/85	Correction to Certification of Prior Releases FR: D. Miller, Ford TO: U.S. EPA	Section 3



Item No.	Item Date	Item Description	Item Filed
17	1/06/86	Initial Screen FR: P. Quackenbush, MDNR TO: U.S. EPA	Section 3
18	6/25/86	FMP FR: P. Quackenbush, MDNR TO: U.S. EPA	Section 3
19	7/28/86	FMP Approval BY: U.S. EPA	Section 3
20		FACT SHEET (DRAFT)	SECTION 6
21		PUBLIC NOTICE (DRAFT)	SECTION 6
22	8-2-88	PUBLIC NOTICE (FINAL)	SECTION 6
23	3-24-88	DRAFT HSWA PORTION OF RCUA PERMIT SUPPORT OF PERMIT (DRAFT) DECISIONS	SECTION 2
24	5-10-88	ACT 64 APPLICATION, REVISIONS	SECTION 2
25	5-18-88	ACT 64 APPLICATION, REVISIONS	SECTION 2
26	6-27-88	ACT 64 APPLICATION, COMMENTS & REVISIONS	SECTION 2
27	7-7-88	TWO WAY MEMO DAVE O'CONNOR TO RICH TRAUB REVISED DESIGN DRAWINGS FOR CELL II	SECTION 2
28		FACT SHEET (FINAL)	SECTION 6
29	7-28-88	COVER LETTER P. QUACKENBUSH TO DAVID MILLER; FACT SHEET, DRAFT ACT 64 LICENSE, PUBLIC NOTICE	SECTION 2
30	8-18-88	LETTER FROM J. AMBER TO R. TRAUB NOTIFYING U.S. EPA THAT ROUGE IS NO LONGER INVOLVED WITH THE ALLEN PARK FACILITY	SECTION 2
31	8-17-88	LETTER TO DNR P. QUACKENBUSH FROM FORD J. AMBER LISTING REVISIONS TO ACT 64 APPLICATION	SECTION 4
32	9-6-88	FORD'S COMMENTS ON THE DRAFT PERMIT	SECTION 5
33		RESPONSE TO COMMENTS	SECTION 5
34		WRITTEN COMMENTS RECEIVED @ PUBLIC HEARING AND MEETING OR SENT TO REGIONS	SECTION 6 FOLDER 1



## RCRA PERMIT DOCKET LOG

Please Print

Facility FORD ALLEN PARK CLAY MINE

ID # MID 980 568 711

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## PART B DOCKET LOG

Please print

Facility FORD MOTOR ALLEN PARKI.D. # MID 980 568 711

Item No.	Item Date	Description	Item Filed*
228-1		LOG	Sec 1
228-2	7/10/84	Letter: Ben C. Tretheway, Manager, Mining Properties Division, Ford Motor Company (FMC) to RCRA Activities, Transmuting permit application, including drawings	folder 2
228-3	7/30/84	Letter: William H. Miner, Chief, Technical, Permit, and Compliance Section, U.S. EPA to Alan J. Howard, Chief, Technical Services Section, Michigan Department of Natural Resources (MDNR)	sec 2
228-4	9/12/84	Letter: Terrance J. McNiel, Haz. Waste Div., MDNR, to MINEP, EPA and attachment	sec 2
228-5	9/12/84	Letter and completeness checklist, McNiel (MDNR) to Miner (EPA)	sec 4
228-6	9/21/84	Letter: Miner (EPA) to Tretheway (FMC)	sec 2
228-7	11/9/84	Letter: Tretheway to USEPA w/enclosures (placed in Paul B)	sec 2
228-8	11/20/84	Record of information transfer	folder 3
228-9	11/21/84	Letter: Miner (EPA) to Howard (MDNR)	sec 2
228-10	12/26/84	Letter and completeness checklist, Peter Quackenbush, Engineer, Technical Services Section, MDNR to Edith Ardiente, Chief, Technical Program section EPA	sec 4
228-11	1/9/85	Letter Tretheway (FMC) to U.S. EPA	sec 2
228-12	1/30/85	Letter: Ardiente (EPA) to Tretheway (FMC)	sec 2
228-13	3/1/85	Letter: BC Tretheway to EPA w/ATTACHMENTS	sec 2
228-14	3/1/85	228-13 ATTACHMENTS	FOL 2
228-15	3/18/85	Letter: Edith Ardiente EPA, RZ Chief TPS to AS Howard MDNR	sec 2
228-16	4/9/85	Letter BC Tretheway FMC to EPA w/enclosure	sec 2
228-17		Enclosure to 228-16	FOL 2
228-18	4/12/85	Letter, Completeness List, Comments Peter Quackenbush MDNR, Rich TRANK EPA	sec 4

\*Folder 1 is arranged by sections.

228-1





PART B DOCKET LOG

Please print

Facility Ford Motor-Allen Park

I.D. # MD 990 568 711

Item No.	Item Date	Description	Item Filed*
228-19		Log #2	Sec 1
228-20	4/23/85	Letter P.J. Hopitsch, EPA Chief, SWB to Tretheway INC. HSWA Acc. Act.	Sec 2
228-21	4/26/85	Rec Ken Borda (MNR) Rich Trumb	Sec 2
228-22	4/29/85	Rec Ken Borda Larry Roberson (MDNR) Rich Trumb EPA	Sec 2
228-23	5/7/85	Letter EM Ardiante (EPA) to AS Harland MDNR	Sec 2
228-24	5/14/85	Rec Rich Trumb - EPA	Sec 2
228-25	5/14/85	Form of Information Transfer	Fol 3
228-26	5/20/85	Letter D. Stringham Dep Dir. WMD, acting SWB chief, EPA to B.C. Tretheway - FMC	Sec 2
228-27	5/15/85	Letter B.C. Tretheway - FMC to EPA - SHS-13 w/enclosures	Sec 2
228-28	8/29/85	Enclosure to 228-27 - Pres study Pt B info	Fol 2
228-29	5/20/85	Letter P. Quackenbush MDNR to EM Ardiante EPA	Sec 2
228-30		MEMO EM Ardiante EPA to RZ Project Officer Re Contractor review of LTR	Sec 3
228-31	7/29/85	Harding, Lawson Pt B Cont EPA Rec Dan Bolbram - FMC Rich Trumb	Sec 3
228-32	8/8/85	Letter BC Tretheway to RCPA Activities	Sec 2
228-33		Attachment to 228-32 Exposure Assessment Fol 2	
228-34	8/19/85	Rec Dave Miller, Rich Trumb - EPA	Sec 2
228-35	9/5/85	Rec D. Miller, R. Trumb EPA	Sec 2
228-36	9/16/85	Rec D. Miller, R. Trumb	Sec 2
228-37	9/18/85	Rec R. Trumb - EPA	Sec 2
228-38	10/2/85	Rec MDNR Trumb, R. Trumb EPA	Sec 2
228-39	10/22/85	Rec D. Miller - Ford, R. Trumb, G. Harland EPA	Sec 2
228-40	10/24/85	Rec D. Miller Ford, R. Trumb, G. Harland EPA	Sec 2

228-19

\*Folder 1 is arranged by sections.



# PART B DOCKET LOG

Please print

Facility Ford Motor Allen Park

I.D. # MD 910 568 711

Item No.	Item Date	Description	Item Filed*
228-41		Log #3	Sec 1
228-42	10/30/85	Letter Ben Ingham to EPA Activities	Sec 2
228-43	11/21/85	Poc L. Miller, P. Traub	Sec 2
228-44	1/8/86	Poc D. Miller, Ford, R. Traub EPA	Sec 2
228-45	1/14/86	Letter Douglas Painter to RCRA Activities	Sec 2
228-46		ATTACHMENT to 228-45 Closure Plan Cell I	Fol 2
228-47	2/4/86	Poc D. Montgomery, R. Traub EPA	Sec 2
228-48	2/28/86	Letter D.A. Stingham to D. Painter	Sec 2

228-41

\*Folder 1 is arranged by sections.

